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GENERA  
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DEDICATED TO THE MEMORY OF

LINNE

THE FATHER OF SYSTEMATICAL CLASSIFICATION, AND

BINOMINAL NOMENCLATURE.

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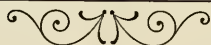
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# GENERA OF HUMMING BIRDS.

BEING ALSO

A COMPLETE MONOGRAPH OF THESE BIRDS.

BY

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OF "THE HUMMING BIRD,"  
&c., &c., &c.

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LONDON, 1893-1895.



## PREFACE.

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IN preparing this volume I have done my best; but I do not presume that it is without fault or errors, and it is probable that in the next twenty years or so, many new forms will be discovered, and will enable other authors to make a better classification of these Birds; but nevertheless, I think that this work, like those of my predecessors, from LINNÉ, VIEILLOT, GMELIN, LESSON, JARDINE, &c., to GOULD, MULSANT, BOURCIER, ELLIOT, SALVIN, BERLEPSCH, LAWRENCE, RIDGWAY, REICHENBACH, HEINE, and others, will help greatly to attain that end. Each author must be satisfied in adding a stone to the edifice until its perfect completion.

I am more convinced than ever that these beautiful birds stand quite alone by themselves. They can be considered as the handsomest and most perfect, and are fully entitled to be classified separately under the name of TROCHILI, as I have proposed for them in my CATALOGUS AVIUM, London, 1876.

In this volume, I have distributed all the species known into eighteen families, believing that in doing so, it will facilitate their study.

The author begs to acknowledge the assistance he has received in the preparation of this volume, from the British Museum, the United States National Museum, the London Zoological Society, Graf von Berlepsch, Robert Ridgway, Osbert Salvin, Auguste Sallé, Eugène Simon, Chas. Cory, Salles, Lawrence, and many others, to all of whom he offers his best thanks. He has been also very much helped in his task by perusing the excellent works on Trochilidae, of Vieillot, Lesson, Jardine, Gould, Gray, Sclater, Salvin, Mulsant, Elliot, Berlepsch, Lawrence, Ridgway, Sharpe, Taczanowski, Cabanis, Reichenbach, Heine, and others.

In the future, the author hopes to be able to issue a certain number of plates figuring the heads of all the genera recognised in this volume. The drawings are ready, but he has not been able yet to find a suitable engraver.

A. B.

SPRING VALE,  
ISLE OF WIGHT,  
*December, 1895.*

TO THE MEMORY OF LINNÉ,  
The Father of Systematic Classification, and  
Binominal Nomenclature.

GENERA OF HUMMING BIRDS,

By A. BOUCARD.

CLASS AVES (BIRDS).

DIVISION PSILOPAEDES, SUND, 1872.

Young at birth, helpless, and entirely naked. Life sustained by the introduction of food into the throat by means of the parents bill. Nest occupied until the birds are full grown.

*TROCHILI, Boucard, Cat., Av., 1876.*

Order of Humming Birds.

Picarian birds with the palate nearly œgitognathous, possessing but one carotid artery, the sinistra, a nude oil gland and no coeca. The femoro caudal and ambious muscles are alone present, the flexor longus halucis, independent of the flexor perforans digitorum, tensor patagii brevis, pterylosis and sternum characteristic. Second, third, and fourth toes directed forwards, the hallux backwards, body small, sometimes minute. Bill varying from feeble to stout, generally longer than the head, straight or curved with a short gap devoid of bristles. Nostrils, basal, linear, covered by an operculum, sometimes hidden in frontal feathers. Tongue slender, filiform, capable of great extension, consisting of two minute parallel tubes. Wings narrow, pointed, the primaries, ten in number, stiff and long, the secondaries very short. The manus is very long, and the humerus very short, enabling the wing to be moved with great rapidity. Sternum large with deep keel. Tail composed of ten feathers varying greatly in shape and size. Tarsi short, either naked or clothed. Feet extremely small, toes short, claws curved and rather large. Plumage generally of the most brilliant metallic hues, equal to the brilliancy of precious stones, sometimes sombre. Females with very few exceptions, plain coloured.

FAMILY I. TROCHILIDÆ,  
Or Family of Humming Birds.

Bonaparte, 1831.

Body small, sometimes very minute. Bill slender, straight or curved, shorter or longer than the head with feathers at base. Throat in males with only one exception, *M. Minima*, always covered with brilliant metallic feathers, crimson, lilac, red, etc. Females plainly coloured, with a patch of metallic feathers on throat, when fully adult. Underside, white, grey or buff. Tail very changeable in form and in length, according to species.

I commence my classification with the Genus *Trochilus*, as the most proper, being the first name proposed by Linné for these beautiful birds, and from which the names of the Order and first Family derive.

Then I continue with the various Genera closely and naturally allied one to another. Excepting for the few species, which I don't possess, the descriptions are taken from the birds in my collection.

GENUS I.—*Trochilus*, Linné, Syst. Nat. 1766, Vol. I., p. 189.

*Cyananthus*, Boie, Isis, 1831.

*Colubris*, Reich, Syst. Av. Nat., 1849, pl. 40.

*Archilochus*, Reich, Troch, Enum, 1855, p. 10.

*Ornysmia*, Muls and Verr, Class. Troch, 1865, p. 91.

TYPE.—*T. colubris*, Linné.

Bill straight, about same length as the head; wings short, tail forked, rectrices pointed. Nostrils hidden by frontal feathers, throat adorned with bright metallic feathers. Sexes unlike in plumage.

I. TROCHILUS COLUBRIS, Linné, Syst. Nat. 1766, Tom. 1, p. 191.

*Red Throated Humming Bird*, Edwards, Hist., t. 1, p. 36.

*Le Petit Rubis de la Caroline*, Briss, Ornith, t. 3, p. 38.

*Habitat*, North America to Veragua, Cuba, Bahamas, and Bermudas.

*Male*.—Upperside and flanks bronzy-green, chin black, throat metallic ruby red, Breast and underside white, tinged with green. Medium rectrices golden green, lateral purplish brown, bill black.

- \* Total length,  $3\frac{1}{2}$  in. ; wings,  $1\frac{5}{8}$  ; tail,  $1\frac{3}{8}$  ; Culmen,  $1\frac{5}{8}$ .  
*Female*.—Upperside pale golden green, underside white.

2. TROCHILUS ALEXANDRI, Bourc and Muls, Ann. Soci. Science, Lyon, (1846).

*Purple Throated Humming Bird*, Gould, Monogr. Troch, Vol. III., p. 131.

*L'Ornysme d'Alexandre* Muls. Hist. nat. des. Oiseaux. mouches, t. 4, p. 62.

*Habitat*. California and Mexico.

*Male*.—Head dark brown. Upperside bronzy-green. Throat, black, bounded beneath by a brilliant band of metallic purple, a pure white band on breast, abdomen and flanks grey spotted with bronze feathers. Undertail coverts white with metallic green central spots, medium retrices bronzy-green, lateral black, glossed with green, bill straight and black.

Total length,  $3\frac{2}{3}$  in. ; wing,  $1\frac{5}{8}$  ; tail,  $1\frac{1}{8}$  ; Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside metallic green, dull on top of head. Underside grayish with centre of abdomen white, central feathers metallic green, lateral greenish gray at base, then black with whitish rufous tips, in some these tips are pure white.

This species was discovered by Mr. Alexander in Mexico, and it was dedicated to him by Messrs. Bourcier and Mulsant.

It is a rare species ; but I have been fortunate in getting a fine series from San Diego, co. California.

3. TROCHILUS VIOLA JUGULUM, Jeff. Auk. 1888, p. 168.

*Purple Throated Humming Bird*. Oiseau mouche à gorge violette. *Habitat*. Santa Barbara (California).

*Male*.—Upperside metallic green and gold, dull on forehead. Throat metallic violet with bluish reflections. Chin and line between gorget dull, a dull gray belt across the breast behind the throat. Breast and abdomen metallic green. Flanks green tipped with brown, ventral medium lines dullish. Wings purple-black. Primaries broad to tip, that of the first curved back, graduated in length from first to last. Tail slightly forked, feathers broad except the last pair, which are abruptly narrow and linear. Middle feathers and base of second pair, metallic green, rest dark with a distinct purple hue. Under tail-coverts white with metallic green central spots.

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\* Although I give the total length for each species, it is not to be relied upon, in the strict sense of the word ; as the total length depends entirely from who prepared the skin. It is just as easy, when skinning, to shorten or lengthen the skin, by one inch, less or more, according to size of bird.

Total length, 360; wing, 182; tail, 118; culmen, 75. It resembles very much to *C. Annæ*, less the crown patch and the violet of the throat, instead of sapphire. It is also distinguishable from *T. Alexandri*. by its larger size, broad primaries, and all the peculiarities of the tail.

Only one specimen of this species is known. It is in Jeffries Collection. Mr. Jeffries says "As but one specimen was procured, it might be a hybrid between *T. Alexandri* and *C. Lucifer*; but this is highly improbable, as it lacks the ruff and crown patch of one, and has a different wing and tail from either. It is more between *T. Alexandri* and *C. Annæ*; but it lacks the crown patch of the latter."

I should like very much to possess one specimen of this remarkable species, as by the description alone, it seems to me to be only a race of *Trochilus Alexandri*.

In some of my specimens of *T. Alexandri* the tail is similar to this species. In another, kindly offered to me by the authorities of Smithsonian Institution, and which was collected by Mr. Henshaw, at Sonoita Valley, Arizona, the bill is  $\frac{1}{8}$  inch longer than in those of San Diego Co.

#### GENUS II.—*Calypte*, Gould Int. Troch., 1861, p. 87.

TYPE O. COSTÆ, Bourcier.

Bill longer than the head, straight or slightly arched. Feathers of crown and throat, brilliantly metallic. Tail short, the three outer feathers stiff, narrow and slightly incurved, tarsi clothed. Feet small, hind and fore toes nearly equal in length, the metallic feathers on sides of neck very elongated.

##### 4. CALYPTE COSTÆ. Bourc. Rev. Zool., 1836, p. 294.

*Mellisuga costæ*, Gray, Gen. of Birds. Vol. I., p. 113.

*Selasphorus costæ*, Bonap., Consp., Gen. Av., 1850, p. 52.

*Atthis costæ*, Reich, Aufz. der Colibr, 1853, p. 12.

*Leucaria costæ*, Muls., Hist. Nat. des Ois. mou. t. IV., p. 69.

*Costu's Calypste*, Gould, Mon. Troch. Vol. III., p. 124.

*Leucarie de Costa*, Muls., Hist. nat. des Ois. mou. t. IV., p. 69.

*Habitat.* Mexico and California.

*Male*.—Upperside bronzy green, head, throat and elongated feathers of neck metallic purple with lilac and blue reflections, according to light. Breast and centre of abdomen pure white. Flanks pale bronzy green, undertail coverts white, bronzy green at centre. Tail green, two outer rectrices brownish gray with black tips, bill black.

Total length,  $2\frac{3}{4}$  in.; wing,  $1\frac{3}{4}$ ; tail, 1; culmen,  $\frac{3}{8}$ .

*Female*, Upperside bronzy-green, greyish on top of head. Underside grayish-white, throat with a few feathers forming



spot, metallic lilac. Median rectrices bronzy green, lateral, gray at base, then black with white tips.

This fine species was dedicated to Marquis Costa de Beauregard, who was a very enthusiast collector, and had in his time one of the finest collection of Humming Birds.

I bought his collection in 1878, and I found among many rare species, what I consider as the types, male and female of this species.

\*5. CALYPTE FLORESII, Gould, Mon. Troch. Vol. III., p. 139.

*Selasphorus floresii*, Gould, Mon. Troch., Vol. III., p. 139.

*Floresi's Flame-bearer*, Gould, Mon. Troch., Vol. III., p. 139.

*Le Selasphore de Floresi*, Muls., Hist. Nat., Ois. m. t. IV., p. 98.

*Habitat*, Bolanos, Mexico.

*Male*.—Back bronzy green, crown and throat metallic scarlet with violet reflections. Underside grayish white, excepting flanks, which are bronzy green. Wings purplish brown. Median rectrices green with purple reflections, outer webs of lateral feathers purple, inner deep reddish buff, bill black.

Total length,  $3\frac{1}{4}$ ; wing,  $1\frac{3}{4}$ ; tail,  $1\frac{3}{8}$ ; culmen,  $\frac{5}{8}$ .

*Female*.—Unknown; probably like *C. costæ*.

This remarkable species was discovered in 1845 by Mr. Floresi, who sent it to Mr. Georges Loddiges. It is unique, and still in the Loddiges Collection.

6. CALYPTE ANNÆ, Less, Ois, Mouch. 1829, p. 205.

*Ornysmia annæ*, Less, Ois, Mouch. 1829, p. 205.

*Troehilus anna*, Aud, B. Amer. Vol. iv, p. 425.

*Mellisuga anna*, Gray, Gen. of Birds. Vol. i., p. 113.

*Selasphorus anna*, Bp. Consp. Gen. Av. 1850, p. 52.

*Atthis anna*, Reich, Aufz der Colib. 1853, p. 12.

*Anna's Calypse*, Gould, Mon. Troch. Vol. iii., p. 135.

*Calypse d'Anna*, Muls. Hist. Nat. Ois Mouch, t. iv. p. 74.

*Habitat*—Mexico and California.

*Male*.—Upper side golden green. Head, throat and elongated feathers of neck metallic crimson. Breast and centre of abdomen grey. Flanks golden green. Under-tail coverts golden green edged with grey. Median rectrices golden green, lateral dark brown with pale margins. Bill black.

Total length,  $3\frac{3}{4}$  in. : wing,  $1\frac{7}{8}$ , and tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside golden green. Underside grey with flanks golden green. Throat spotted in middle with metallic

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\* All the species marked so \* are those which I have not got and am willing to purchase.

crimson red feathers. Median rectrices golden green, lateral grey at base, then golden green, then black, the two outer feathers tipped with white. Bill black.

This species was dedicated to Mrs. Anna, Duchess of Rivoli, wife of Mariscal Massena, who formed a very fine collection of Birds, which is now the property of the Academy of Sciences of Philadelphia, United States.

I have killed many specimens of both sexes of this species in San Francisco, California, where it is abundant.

7. CALYPTE HELENÆ, Lembeye, Aves, Isle of Cuba. 1850, p. 70.

*Orthorhynchus boothi*, Gund, Jour. fur Ornith. 1856, p. 99.

*Helena's Calypste*, Gould, Mon. Troch. Vol. III., p. 136.

*Le Calypste d'Hélène*, Muls. Hist. nat. Ois. Mou., t. iv., p. 78.

*Habitat*—Cuba.

*Male*.—Upperside and flanks greenish blue. Head, throat and elongated feathers of neck metallic crimson. Underside whitish. Tail metallic greenish blue. Wings purplish brown. Bill black.

Total length,  $2\frac{5}{8}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside dark green changing into bluish green on the lower part of back. Underside greyish white. Median rectrices dark bluish green, lateral bluish green at base, rest black tipped white, bill black.

This diminutive species, the smallest known, was discovered at Cadenas (Cuba) by Doctor Jean Gundlach. It is still very rare. I have only one young male in my collection.

GENUS III. *Mellisuga*, Brisson, Ornith, 1760, t. III, p. 695.

*Dyrinia*, Muls and Verr., Class Troch., 1865, p. 88.

TYPE T. *Minimus*, Linné.

Bill straight, shorter than the head, rather wide at base, graduating to a point. Wings long and primaries narrow. Tail slightly forked. No parure. Sexes alike. Size very minute.

*Habitat*, Jamaica, Haiti, Sto. Domingo.

8. MELLISUGA MINIMA. Linn, Syst. Naturae, 1766. Vol. I. p. 193.

*Le plus petit Oiseau mouche*, Buff. Pl. enlum, 276, fig. 1.

*Trochilus Minutulus*, Vieill, Ois. Amer., Sept. 1807, t. 2, p. 73.

*Trochilus Vieillotii*, Shaw. Gen. Zool, Vol. VIII., p. 347.

*Ornysmia Minima*, Less, Oiseaux. Mouch, 1829, pl. 79.

*Mellisuga Humilis*, Gosse, B. Jamaica, 1847, p. 127.

*Trochilus Catherineæ*, Sallé, Rev. Zool., 1849, p. 498.

*Hylocharis Nigra*, Gray, Gen. of Birds, Vol. I., p. 114.

*Hylocharis Niger*, Bon. Consp., Gen. Av., 1850. Vol. I., p. 81.

*Dyrinia Minima*, Muls and Verr, Class Troch., 1865, p. 88.

*Little Humming Bird*, Gould, Mon. Troch., Vol. III., p. 133.

*Le Mellisuge le plus Petit*, Muls., Hist. Nat. Ois. m. t. iv., p. 83.

*Habitat.* Jamaica, Hayti, Sto. Domingo.

*Male.*—Upperside shining dark green. Throat white speckled with minute brown spots. Breast and centre of abdomen white. Flanks and undertail coverts green marked with gray. Median rectrices green, the remainder of tail black. Bill black.

Total length,  $2\frac{3}{4}$  in; wing,  $1\frac{3}{8}$ ; tail,  $\frac{7}{8}$ ; culmen,  $\frac{3}{8}$ .

*Female.*—Upperside, light shining green. Throat, breast, and abdomen white. Flanks, golden green, tinged with gray. Tail green at base. then black, the lateral feathers tipped white.

A little smaller than the male.

Rather abundant in Jamaica; but rare in the collections.

#### GENUS IV. *Selasphorus*, Swains, Faun. bor. americ.

1831, vol. ii., p. 496.

TYPE: *Selasphorus rufus*, Gmelin.

Bill straight. Feathers of the neck elongated, metallic. Wings short, the quills narrowed and sometimes pointed. Tail moderately graduated, tips mucronate.

#### 9. SELASPHORUS RUFUS, Swains, Faun. bor. americ. 1831, vol. ii., p. 496.

*Rufous. Flame-bearer*, Gould, Monog. Troch. vol. iii., p. 137.

*Trochilus ruber*, L. Syst. Nat. 1766, vol. i., p. 193.

*Ruff necked Humming Bird*, Lath. Gen. Syst., 1781, vol. ii., p. 785.

*Le Sasin*, Aud & Vieill, Oiseaux dorés, T. i., p. 110.

*Mellisuga rubra*, Gray, Gen. Birds, vol. i., p. 113.

*Selasphorus alleni*, Henshaw, Bull. Nutt. Ornith. Club, 1877, vol. ii., p. 54.

*Selasphorus henshawi*, Elliot, Bull. Nutt. Ornith. Club, 1877, vol. ii., p. 54.

*Habitat.*—Vancouver to South Mexico.

*Male.*—Head and back bronzy green. Back sometimes rufous. Sides of the head, rump, flanks and undertail coverts rufous. Throat brilliant metallic coppery red. Breast and centre of abdomen white. Wings purplish brown. Tail short, cuneate, acutely pointed. Median rectrices broad, tips of lateral ones very narrow. Bill straight, black. Tail, black.

Total length,  $3\frac{3}{4}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female.*—Upperside bronzy green. Underside whitish. Flanks and undertail coverts pale rufous. Throat white with

rufous spots. In the centre several metallic red spots. Median rectrices green, lateral ones rufous at base, then green, then black, tipped white. Bill black.

This species was discovered by Captain Cook.

I found it abundantly in California and in Mexico.

I have united *Selaphorus henshawi* and *Selaphorus alleni* with this species, as I do not see the differences which distinguish them. I have a fine series of this species from Vancouver Island to South Mexico.

Some from Vancouver and Arizona have the head and centre of back metallic green, remainder buff. Some from San Francisco, California, have the head and all the back metallic green; but I have also some with the head dull brown and the back buff spotted all over with green feathers. Others from Lower California, New Mexico, Arizona and Mexico have the head greenish brown and the back entirely buff. I think that the greenish plumage of the back belongs to those which are in nuptial plumage. It must be so; as in California, and especially in the neighbourhood of San Francisco, the place where they nest, I have killed many specimens in nuptial plumage. After the breeding season, they emigrate to Lower California, Arizona and Mexico. The adults are then with faded plumage and the young in immature plumage, and both rufous on back.

10. SELAPHORUS SCINTILLA, Gould, Mon. Troch., vol. iii., p. 138.

*Little Flame-bearer*, Gould, Mon. Troch., vol. iii., p. 138.

*Selasphore étincelant*, Muls. His. Nat. des Ois. M., t. iv., p. 105.

*Habitat*.—Costa Rica and Veragua (Columbia).

*Male*.—Upperside dark golden green. Throat metallic coppery red, breast white, abdomen rufous, flanks golden green. Tail rufous with a median line of purplish black on the central feathers, external rufous on inner web, purplish black on the outer. Maxilla black, mandibles flesh colour at base, rest black.

Length of wing,  $1\frac{1}{4}$  inch. Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{3}{8}$ .

Its very small size distinguishes that species from *S. rufus*, to which it is very allied by its coloration.

I have two male specimens from Chiriqui (Veragua) and four specimens collected by myself at Cartago (Costa Rica).

*Female*.—Head blackish brown. Back golden green. Throat white spotted with buff. Breast and abdomen white. Flanks and undertail coverts rufous. Median rectrices bronze green margined with rufous, lateral rufous with a subterminal black bar. Bill black.

This species was discovered by M. Warszewich on the Volcano of Chiriqui.

11. SELAPHORUS ARDENS, Salv. P.Z.S., 1870, p. 209.

*Salvin's Flame-bearer*, Gould, Suppl. Mon. Troch, pl. 42.

*Selasphore à cravate d'un rouge ordent*, Muls. Hist. nat. des Ois. m., t. iv., p. 103.

*Habitat*.—Veragua (Columbia).

*Male*.—Upperside bronzy-green. Lores and ear-coverts rufous, the latter mixed with black. Throat metallic amethystine red. Breast pure white with a rufous bar underneath. Abdomen and undertail-coverts whitish with centre rufous. Flanks greenish-rufous. Tail purplish-black margined with rufous. Wings purplish-brown. Bill black.

Length of wing,  $1\frac{1}{2}$  in. Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside bronzy-green. Throat buffy-white spotted with brown. Breast white. Abdomen and flanks rufous. Middle tail feathers bronzy-green with black tips and edged rufous, lateral ones buff with a black bar across in their central part. Bill black.

This species is scarcely larger than *L. scintilla*. It was discovered on the volcano of Chiriqui, Veragua (Columbia), by Mr. Arcé.

I have two very fine males and one female of this rare species.

12. SELASPHORUS PLATYCERCUS, Swains, Ann. Phil. 1827, p. 441.

*Ornismya tricolor*, Less, Ois. Mou. 1829, p. 125.

*Ornismya montana*, Less, Trochil. pp. 161, 163.

*Mellisuga platycerca*, Gray, Gen. of Birds. Vol. I, p. 113.

*Broad Tailed Flame-bearer*, Gould, Monog. Troch. Vol. III. p. 140.

*Sélasphore à large queue*, Muls. Hist. Nat. des Ois. m. Vol. IV., p. 95.

*Habitat*.—North America to Guatemala.

*Male*.—Upperside bronzy-green. White spot under the eye. Throat metallic amethystine-red. Breast white with rufous band on the sides. Abdomen and undertail coverts whitish grey. Flanks bronzy green. Median rectrices bronzy-green; laterals blackish-brown margined with rufous, underneath bluish-black, very slightly margined with rufous. Wings and bill black.

Length of wing,  $1\frac{7}{8}$  in. Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{5}{8}$ .



*Female*.—Upperside bronzy-green. Throat white spotted with brown. Breast and abdomen and undertail-coverts whitish-grey. Flanks rufous. Middle tail-feathers bronzy green, lateral buff at base, remaining portion black with white tips. Bill black. Sometimes the throat is speckled with several metallic amethystine red feathers.

This species is rather common in Mexico, where I collected many specimens.

13. SELASPHORUS FLAMMULA Salv. P.Z.S. 1864, p. 586.

*Rosy throated Flame-bearer*, Gould, Suppl. Monog. Troch. p. 42.

*Selasphore flammule*, Muls. Hist. nat. des Ois. m. t. iv., p. 100.

*Habitat*.—Costa Rica and Veragua (Columbia).

*Male*.—Upperside bronzy-green. Throat metallic lilac-red, quite peculiar. Breast and abdomen white. Flanks bronzy green slightly margined with buff. Undertail-coverts white with base rufous. Median rectrices bronzy-green margined with buff, lateral purplish-black margined with rufous. Bill black.

Total length,  $2\frac{7}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside bronzy-green. Throat white speckled with small bronzy green spots. Breast and abdomen white. Undertail-coverts buff. Median rectrices bronzy-green edged with rufous, lateral black with buffy white tips. Bill black.

I found this species nearly at the summit of Volcano Irazu, Cartago (Costa Rica.)

The type of this species (from Salvin & Godman's Collection), is in the collection of the British Museum, and is a poor specimen. It was discovered by Arcé.

\* 14. SELASPHORUS TORRIDUS, Salv. P.Z.S., 1870, p. 208.

*Torrid Flame-bearer* Gould, Suppl. Mon. Troch, p. 41.

*Le Selasphore brûlé*, Muls. Hist. Nat. des Ois. Mou. T. iv., p. 101.

*Habitat*.—Volcano of Chiriqui, Veragua, Columbia.

*Male*.—Upperside bronzy-green. Throat metallic pale purple-lilac with silvery reflections, somewhat like *S. flammula*, but very distinct, feathers on the sides of neck elongated as in *S. flammula*. Breast and middle of abdomen white.

Flanks green. Undertail-coverts buffy-white, the rest as *S. flammula*.

Total length,  $2\frac{5}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Exactly the same as *S. flammula*.

This fine species was discovered by Arcé on the Volcano of Chiriqui, Veragua. It is represented in the Collection of the British Museum by seven adult males, 1 male junior and 2 females, all from Messrs. Salvin and Godman Collection.

GENUS V. *Catharma* Elliot, Ibis, 1876, p. 400.

TYPE: *O. orthura*, Lesson.

Bill longer than the head, broad at base, pointed at tip. Wings long reaching beyond the centre of the tail, which is extremely short and almost square.

*Habitat*.—Guiana and Venezuela.

15. CATHARMA ORTURA, Less. Hist. Nat. Trochil 1831, pp. 85—88.

*Trochilus orturus*, Reich, Aufz. der. Colib. 1853, p. 12.

*Tryphæna ortura*, Bon. Rev. and Mag. Zool. 1854, p. 257.

*Lesson's Flame-bearer*, Gould, Suppl. Mon. Troch. p. 43.

*Le Catharme à quene droite*, Muls. Hist. Nat. Ois. Mouch. t. iv., p. 66.

*Male*.—Upperside bronzy-green. Behind the eye a small, white spot. Throat metallic amethystine-red, beneath which is a narrow white band. Centre of abdomen white. Flanks bronzy green, edged with buff. Median rectrices bronze-green, lateral green at base, rest black with white tips. Wings purplish-brown. Bill black.

Total length,  $2\frac{5}{8}$  in. Wing  $1\frac{3}{8}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronzy-green. Ear coverts, cheeks and a line around lower part of the throat blackish-brown. Throat white spotted with brown. A band of white across the breast, beneath which is another dark brown. Rest of underside rufous. Central rectrices bronze-green, lateral bronze-green with apical black band. Undertail-coverts pale bronzy-green margined with grey. Bill black. This is a rare species. I have only one male in my Collection.

“Ex Collection Costa de Beauregard.”

GENUS VI. *Atthis*, Reich, Aufz. der Colib., 1853, p. 12.

TYPE: *O. Heloise*, Lesson and Delattre.

Bill about as long as the head, straight, rather flat on culmen. Wings nearly as long as the tail, which is rounded and short. Feathers of the throat much elongated.

*Habitat*: Mexico, Guatemala.

16. *ATTHIS HELOISÆ*, Less. & Delatt, Rev. Zool., 1839, p. 15.

*Mellisuga heloisæ*, Gray, Gen. of Birds, vol. i., p. 113.

*Tryphaena heloisæ*, Bon. Rev. and Mag. Zool., 1854, p. 257.

*Selasphorus heloisæ*, Gould, Mon. Troch., vol. iii, p. 141,

*Heloisæ's Flame-bearer*, Gould, Mon. Troch., vol. iii., p. 141.

*L'Atthis d'Heloise*, Muls., Hist. Nat. Ois. Mouch, vol. iv., p. 91.

*Male*.—Upperside shining golden-green. Throat metallic reddish-violet with purple reflections. Breast, vent and abdomen white. Flanks golden-green. Under tail-coverts buffy-white. Median rectrices shining grass-green, lateral buff at base succeeded by a bar of black tipped with white. Wings purplish-brown, outer primary abruptly attenuated. Bill black.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{3}{8}$ . Tail, 1. Culmen,  $\frac{1}{2}$ .

*Female*.—Upper side golden-green. Throat buffy-white spotted with brown nearly golden. Breast and abdomen white. Flanks buff. Upper tail-coverts golden-green. Median rectrices buff with a central bronze green spot on the internal edge, lateral buff at base, then barred slightly with bronze, and succeeded with a broad black band, with light buff tips.

This beautiful species was discovered in Jalapa (Mexico) by the celebrated naturalist traveller Adolphe Delattre. I have killed many specimens of both sexes at Cordoba and San Andres-Tuxtla (Mexico).

17. *ATTHIS ELLIOTI*, Ridgw, Proceed. U.S. Nat. Mus., 1878, p. 9.

*Elliot's Flame-bearer*. Gould, Suppl. Mon. Troch., p. 44.

*L'Atthis d'Elliot*.

*Habitat*.—Mexico, Guatemala.

*Male*.—Exactly the same as the preceding species, from which it can be only distinguished by the shape of the first primary, which is not abruptly attenuated. It is scarcely



sufficient to consider it as a distinct species, as the same thing occurs in all the young males and adult females of *A. Heloisæ*.

I have several specimens of this variety collected by me in Oaxaca (Mexico) and in Guatemala.

GENUS VII. *Stellula*, Gould, Int. Troch. 1861, p. 90.

*Stellura*, Muls. and Verr., Class Troch., 1865, p. 88.

TYPE: *T. Calliope*, Gould.

Bill longer than the head, straight and pointed. Wings moderately long and sickle-shaped: first primary rigid. Tail short and truncate. Feet small, claws diminutive and curved.

*Habitat*, Mexico.

18. *STELLULA CALLIOPE*, Gould, P.Z.S. 1847, p. 11.

*Calothorax calliope*, Gray, Gen. Birds, vol. i., p. 113.

*Stellura calliope*, Muls, Hist. Nat. des Ois. m. t. iv., p. 87.

*Mexican Satellite*, Gould, Mon. Troch., vol. iii, p. 142.

*La Stellure calliope*, Muls. Hist. Nat. Ois. mouch. t. iv., p. 87.

*Male*.—Upperside bronzy-green. Feathers of the throat very long and narrow, metallic pink. Breast and abdomen white. Flanks bronzy-green and buff. Undertail-coverts white. Wings and tail purplish-brown. Bill black, base of mandible flesh color.

Total length,  $2\frac{5}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail, 1. Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy-green. Throat white speckled with brown. Breast and abdomen white. Flanks and undertail-coverts buff. Median rectrices metallic bronzy-green, tipped black, lateral buff at base, underneath a narrow bronzy green band, then black with buff tips. Internally they are buff at base, then black with a large white spot on tips of the three outermost feathers on each side.

This species was discovered in Mexico by Mr. Damien Floresi d'Arcais.

It is rather rare. I have killed several specimens near Mexico.

GENUS VIII. *Calothorax*, Gray, Gen. of Birds, 1840, p. 13.*Lucifer*, Reich, Syn. Av. Natur. 1849, p. 39.*Manilia*, Muls. and Verr., Class Troch., 1865, p. 86.*Cyanopogon*, Reich, Bon. Ann. Soci. Nat. 1854, p. 138.TYPE: *C. lucifer*, Swainson.

Bill long, slender, curved throughout its length, broad at base; nostrils hidden by frontal plumes. Wings moderately pointed. Tail forked, outermost rectrix on either side shortest, sometimes consisting of but little more than the shaft, the webs being very narrow. Tarsi short, and partially clothed. Feet small. Sexes unlike.

*Habitat*.—Mexico.19. *CALOTHORAX LUCIFER*, Swains, Phil. Mag. 1827, p. 442.*Ornismya cyanopogon*, Less, Ois. Mouch. 1829, p. 50.*Trochilus simplex*, Less. Trait. Ornit., 1831, p. 291.*Lucifer cyanopogon*, Reich, Aufz. der. Colib. 1853, p. 13.*Mexican Star*, Gould, Mon. Troch. Vol. iii., p. 143.*Le Calothorax Barbe bleue*, Muls., Hist. Nat. des. Ois. m. t. iv., p. 27.*Habitat*.—Mexico.

*Male*.—Upperside bronzy-green. Throat metallic lilac purple with bluish reflections, feathers elongated on the sides. Breast pure white, encircled with a narrow rufous band. Abdomen and undertail-coverts white. Flanks bronzy green, rufous near the feet. Tail purplish-brown. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{3}{4}$ .

*Female*.—Upperside-bronzy green. Lores black. Underside deep buff. Median rectrices bronze-green; lateral greenish at base, then black and tipped with white. Bill black. Same size as male. This species is abundant in Mexico.

20. *CALOTHORAX PULCHRA*, Gould, Ann. Mag. Nat. Hist., vol. iv., p. 97.*Manilia pulchra*, Muls, Hist. nat. Ois. m., t. iv., p. 31.*Beautiful Wood star*, Gould. Mon. Troch., vol. iii., p. 144.*La Manilie belle*, Muls, Hist. nat. Ois. m., t. iv., p. 31.

Both sexes are exactly like the preceding species. The only way of distinguishing it is by the feathers of the tail, which are of uniform width; meanwhile in *C. lucifer* the outermost rectrices are filiform in shape, almost denuded of webs and pointed. I really do not know if it is sufficient to consider it as a species, and much less a genus as made by Mr. Mulsant.

It is true that all the species secured by me in Oaxaca (Mexico) in June, 1857, among which are the types of the species, were alike.

I used to kill them in the gardens of that city.

GENUS IX. *Acestrura*, Gould, Int. Troch. 1861, p. 91.

*Polymnia*, Muls. and Verr. Class. Troch, 1865, p. 91.

*Acestrura*, Muls. Hist. Nat. des Ois, m. t. iv., p. 117.

*Myrmia*, Muls. Cat. Ois. mouch, 1875, p. 32.

TYPE O. *mulsanti*, Bourcier.

Bill longer than the head, slightly arched. Median rectrices very short; the two outer ones filamentous and shorter than the third. Wings small. Tarsi clothed, feet small. Sexes unlike.

*Habitat*.—S. America.

21. *ACESTRURA MULSANTI*, Bourc, Ann. Sci. Phys., Lyon, 1842, t. v., p. 342.

*Ornismya mulsanti*, Bourc, Ann. Sic. Phys. Lyon, 1842, t. v., p. 342.

*Mellisuga mulsanti*, Gray, Gen. of Birds, vol. i., p. 113.

*Calothorax mulsanti*, Bonap., Consp., Gen. Av., 1850, vol. i., p. 85.

*Lucifer mulsanti*, Reich, Troch. Enum., 1855, p. 10.

*Chaetocercus mulsanti*, Cab and Heine, Mus. Hein., 1860, p. 60.

*Mulsant's Wood star*, Gould, Mon. Troch. Vol. iii., p. 145.

*L'Acestrure de Mulsant*, Muls. Hist. Nat. Ois., m. t. iv., p. 118.

*Habitat*.—Columbia, Ecuador, Peru, Bolivia.

*Male*.—Upperside and flanks shining dark grass-green. Throat metallic violet-red. Line behind the eye, chin, breast, abdomen, undertail-coverts, and a tuft behind the

thigh, pure white. Wings dark purple. Tail purplish-black. Bill black.

Total length,  $3\frac{2}{3}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside golden-green, excepting the rump which is buff. Throat, breast and abdomen deep buff. Sides of the neck and breast brown. Median rectrices buff at base, then black slightly tipped buff, lateral buff with a black spot in centre of internal edge. Bill black. Same length as male.

22. *ACESTRURA HELIODORI*, Bourc, Rev. Zool., 1840, p. 275.

*Mellisuga heliodori*, Gray, Gen. Birds. Vol. I., p. 113.

*Calothorax heliodori*, Bon, Consp. Gen. Av., 1850, Vol. I., p. 85,

*Lucifer heliodori*, Reich, Troch. Enum., 1855, p. 10.

*Chaetocercus heliodori*. Cab and Heine, Mus. Hein., 1860, p. 60.

*Heliodore's Wood star*, Gould, Mon. Troch. Vol. III., p. 117.

*L'Acestrure d'Heliodore*, Muls, Hist. Nat. Ois., m. t. iv., p. 121.

*Habitat*, Columbia.

*Male*.—Upperside, abdomen and undertail-coverts dark grass-green. Throat metallic violet-red, feathers elongated on the sides. Breast greyish-white. A patch of white on the flanks. Wings purplish-brown. Tail brownish black.

Total length,  $2\frac{5}{8}$  in. Wing,  $1\frac{1}{8}$ . Tail,  $\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden-green. Lores and ear-coverts dark brown. Underside deep buff. Tail deep buff with sub-terminal black bar. Bill black.

Same length as male.

Very abundant in Columbia.

23. *ACESTRURA DECORATA*, Gould, P.Z.S., 1860, p. 309.

*Decorated Wood star*, Gould, Mon. Troch. Vol. III., p. 146.

*Habitat*, Mérida (Venezuela).

Both sexes of this species are exactly like the preceeding, but the feathers of the throat are not so prolonged, and the colour is of a more metallic lilac red; but I doubt very much if this is sufficient to consider it as a distinct species.

I have several specimens of both sexes sent to me from Merida, Venezuela.

\*24. ACESTRURA MICRURA, Gould, P.Z.S. 1853, p. 109.

*Myrmia micrura*, Muls., Hist. Nat. Ois., m. t. iv., p. 113.

*Short Tailed Wood Star*, Gould, Mon. Troch., vol. iii., p. 146.

*La Myrmie à courte queue*, Muls., Hist. Nat. Ois., m. t. iv., p. 113.

*Habitat*.—Bolivia.

*Male*.—Upperside bronze-green. Chin, sides of the throat, and underside pale buff. Throat metallic amethyst. Under tail-coverts white. Tail and bill black.

Total length,  $2\frac{3}{8}$  in. Wing,  $1\frac{2}{8}$ . Tail,  $\frac{3}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Upperside bronze-green. Underside nearly white. Tail black, lateral rectrices tipped with white.

The types of this species are in the British Museum collection. They have five males and two females, which I have studied with care, and was not able to see in what they differ from *A. heliodori*.

GENUS X. **Chaetocercus**, Gray, Gen. of Birds, 1853, p. 22.

*Osalia*, Muls and Verr, Class Troch., 1865, p. 92.

*Polycemus*, Muls, Hist. Nat. Ois., m. 1877, t. 4, p. 123.

TYPE: *O. Jourdani*, Bourcier.

Bill long as the head, straight, slender; nostrils hidden in frontal plumes. Median rectrices extremely short; two next the outermost long, equal, and uniform; outermost about half the length of the one next, filiform, graduating to a point, stiff. Sexes unlike.

*Habitat*.—Trinidad, Venezuela, Ecuador.

25. CHAETOCERCUS JOURDANI, Bourc, Rev. Zool., 1839, p. 295.

*Mellisuga Jourdani*, Gray, Gen. Birds, vol. i., p. 113.

*Calothorax Jourdani*, Bon, Consp. Gen. Av., 1850, vol. i., p. 85.

*Lucifer Jourdani*, Reich, Troch. Enum., 1855, p. 10.

*Osalia Jourdani*, Muls. and Verr., Class. Troch., 1865, p. 32.

*Jourdan's Wood Star*, Gould, Mon. Troch., vol. iii., p. 150.

*Le Chaetocerque de Jourdan*, Muls, Hist. Nat. Ois., m. t. iv., p. 125.

*Habitat*.—Trinidad, Antillac.

*Male*.—Upperside and median rectrices, flanks and abdomen dark bronzy-green. Throat metallic violet. Breast white. Lateral rectrices purplish-brown, the longest internally, buff at centre. Bill black.

Total length,  $2\frac{5}{8}$  in. Wing,  $1\frac{3}{8}$ . Tail, 1. Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside and flanks golden-green. Median rectrices green, lateral buff with a subterminal black bar. Underside buffy-white.

26. CHAETOCERCUS ROSAE, Bourc. and Muls, Ann. Soc. Lyn. Lyon, 1846, t. ix., p. 316.

*Mellisuga rosae*, Gray, Gen. of Bird. vol. i, p. 113.

*Calothorax rosae*, Reich, Aufz der Col. 1853. p. 13.

*Lucifer rosae*, Reich, Troch. Enum. 1855. p. 10.

*Crimson throated Wood Star*, Gould, Mon. Troch. vol. iii. p. 149.

*Le Chaetocerque de Rose*, Muls., Hist. Nat. Ois. m. t. iv., p. 127.

*Habitat*.—Venezuela.

*Male*.—This species differs from *C. jourdani* only by the colour of the throat, which is deep metallic crimson.

Total length, 3 in. Wing,  $1\frac{3}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{4}$ .

*Female*.—Differs from the preceding species by the underside, which is entirely pale buff. Size same as male.

This pretty species was dedicated to Mrs. Rose Duquaire, sister of Mr. E. Mulsant.

The specimens in my collection were sent to me direct from Merida (Venezuela).

- \*27. CHAETOCERCUS BERLEPSCHI, Simon, Mem. Soc. Zool de France, 1889, p. 231.

*Berlepsch's Wood Star*.

*Le Chaetocerque de Berlepsch*.

*Habitat*.—Ecuador.

*Male*.—Upperside dark bronzy green as the preceding species. Throat metallic amethystine red. Breast white. Abdomen and flanks dark green. Lateral rectrices pointed in all their length. In size it stands between *C. Rosae* and *C. Bombus*.

This charming species was dedicated to the well known Ornithologist, Count Berlepsch. It is unique in Simon's Museum.



28. CHAETOCERCUS BOMBUS, Gould, P.Z.S. 1870, p. 804.

*Polyxèmus Bombus*, Muls., Hist. Nat. des. Ois. m. 1877, t. iv., p. 123.

*Little Wood Star*, Gould, P.Z.S. 1870, p. 804.

*Le Polyxème Bourdon*, Muls., Hist. Nat. Ois. m. 1877, t. iv. p. 123.

*Habitat*.—Ecuador.

*Male*.—Upperside and abdomen dark bronze-green. Throat metallic crimson. Breast rufous. Tail purplish black, inner webs of third rectrices margined with buff at base. Wings purplish brown. Tuft behind the thigh white. Bill black.

Total length,  $2\frac{1}{2}$  in. Wing, 1. Tail,  $\frac{3}{4}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden-green. Underside buff. Tail buff with a subterminal black bar. Tuft behind the thigh white. Bill black. Same size as male.

This beautiful species was discovered in 1870 by Buckley, the well known explorer, at Canelos, Ecuador.

I have two males and one female in my collection, from which the above descriptions were taken.

\*29. CHAETOCERCUS BURMEISTERI, Sclat, P.Z.S. 1887, p. 638.

*Burmeister's Wood Star*.

*Le Chaetocerque de Burmeister*.

*Habitat*.—Tucuman.

*Male*.—Upper side dark green metallic color. Wings purplish black. Chin whitish. Throat metallic crimson red with green reflections in certain lights. White spot behind the eyes descending to breast. Breast whitish with dark spot on every feather causing a greyish band on the middle of the breast. Remainder of breast and abdomen white. Undertail coverts yellow brown, spotted with green. The exterior rectrix black. The second has a clear brown stripe on the inner border. The third retriix is very short, only half an inch long and more than eight lines shorter than the exterior, and quite black. The two middle feathers are shorter than the third pair and partly covered by the coverts; they are of a metallic green colour like the coverts.

A single specimen of this species, which is very allied to *C. Bombus*, is known. It is in the National Museum of Buenos Ayres, Argentine Republic.

GENUS XI. **Tilmatura**, Reich, Aufz. der Colib. 1853, p. 8.

*Tryphaena*, Gould, Int. Troch, 1861, p. 96.

TYPE: *O. Duponti*, Lesson.

Bill straight, long as the head. Wings short. Tail deeply forked, outermost feather tapering rapidly at tip and curved inwards. Sexes unlike.

*Habitat*—Mexico and Guatemala.

30. **TILMATURA DUPONTI**, Less, Ois. Mouch Suppl. 1829, p. 150.

*Ornysmia coelestis*, Less, Trait. Ornith, 1831, p. 276.

*Ornysmia zémès*, Less, Rev. Zool, 1838, p. 315.

*Mellisuga duponti*, Gray, Gen. of Birds, vol. i., p. 113.

*Tryphaena duponti*, Bon., Consp., Gen. Av., 1850, p. 84.

*Tilmatura lepida*, Reich, Aufz der Colib., 1853, p. 8.

*Thaumastura duponti*, Bon., Rev. and Mag. Zool, 1854, p. 257.

*Trochilus duponti*, Jard, Nat. Lib. Hum. Birds, vol. i., p. 131.

*Sparkling Tail Humming Bird*, Gould, Mon. of Troch., vol. iii., p. 158.

*Le Tilmature de Dupont*, Muls. Hist. Nat. Ois. m. t. iv., p. 12.

*Habitat*.—Mexico and Guatemala.

*Male*.—Upperside dark golden-green. Throat deep metallic blue. Breast white. Abdomen and flanks, dark shining green, edged with light gray. Median rectrices shining green, next one dark brown, the others rufous at base, then black with a white spot, then dark brown tipped white. Bill black.

Total length 4 in. Wing  $1\frac{1}{2}$ . Tail 2. Culmen  $\frac{5}{8}$ .

*Female*.—Upperside bronzy-green. Underside buff. Throat paler, speckled in the centre with brown spots. Centre of abdomen white. Middle tail feathers green at base, remaining part black tipped with white. Bill black.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{3}{4}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{5}{8}$ .

Dedicated by Lesson to M. Dupont, a dealer naturalist of Paris.

It is a scarce species. I have killed several specimens at Cordoba, Mexico. It is more abundant in Guatemala.



GENUS XII. **Myrtis**, Reich, Aufz. der Colib., 1853, p. 13.

*Zephyritis*, Muls. and Verr. Class. Troch. 1865, p. 87.

*Eudisia*, Muls. Cat. Ois. m. 1875, p. 32.

*Eulidia*, Muls. Hist. Nat. Ois. m. t. iv., p. 114.

TYPE O. *Fanny*, Lesson.

Bill longer than the head, curved for its entire length. Wings rather long, reaching half the length of the tail. Medium rectrices short almost hidden in the coverts, the others long, nearly of the same length.

*Habitat*.—Ecuador, Peru and Bolivia.

31. MYRTIS FANNY, Less. Ann. Scien. Nat., 1838, t. ix., p. 170.

*Trochilus labrador*, Bourc. Ann. Soc. Sci. Lyon, 1839, p. 339.

*Calothorax fanny*, Gray, Gen. of Birds, vol. i., p. 110.

*Thaumastura fanny*, Bon., Compt. Rendus, 1850, p. 383.

*Lucifer labrador*, Bon., Rev. and Mag. Zool. 1854, p. 257.

*Fanny's Wood Star*, Gould., Mon. Troch., vol. iii., p. 151.

*Le Myrtis de Fanny*, Muls., Hist. Nat. Ois. m. t. iv., p. 34.

*Habitat*.—Ecuador and Peru.

*Male*.—Upperside light bronze-green. Throat metallic bluish green with a narrow band of metallic blue, and the centre luminous violet forming a good spot. White band across the breast, sometimes edged with pale rufous. Abdomen and undertail-coverts dull white. Flanks bronzy, washed with buff. Tail brownish-black, the median with a bronze gloss. Wings brown. Bill black.

Total length,  $3\frac{3}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronzy-green. Throat and abdomen white, the rest buff. Median rectrices shiny-green, next green tipped with black. Lateral buff at base, then black tipped white. Bill black.

Size like the male excepting the tail, which is a little shorter.

The types "Ex Coll Bourcier and Elliott" are now in the American Museum of Natural History of New York.

I have a fine series of both sexes of this species collected by Buckley in Ecuador.

\* 32. MYRTIS YARELLI, Bourc, P.Z.S., 1846, p. 45.

*Callothorax yarelli*, Reich, Aufz. der Colib, 1853, p. 13.

*Lucifer yarelli*, Reich. Troch. Enum., 1855, p. 10.

*Eudisia yarelli*, Muls. Cat. Ois. m., 1875, p. 32.

*Eulidia yarelli*, Muls. Hist. Nat. Ois. m., 1877, t. iv., p. 115.

*Yarrell's Wood Star*, Gould. Mon. Troch., vol. iii., p. 152.

*L'Eulidie de Yarell*, Muls. Hist. Nat. Ois. m., 1877, t. iv., p. 115.

*Habitat.*—Bolivia.

*Male.*—Upperside and four central tail feathers light yellowish green. Throat metallic lilac with blue reflections. Underside white-washed with green on the flanks. Lateral feathers of tail stiff, narrow, and graduate to a point, dark brown. Bill black.

Total length,  $2\frac{7}{8}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female.*—Upperside like the male, Underside buffy-white. Middle tail feathers green, next green with black tips, remainder buff at base, then black tipped with white.

This rare species is one of my desiderata. According to Mulsant it was described by Bourcier from one specimen in Georges Loddiges Collection, and dedicated to Mr. William Yarrell, who was for a long time Vice-President of the Zoological Society of London. If it can be relied upon, the types of the species are still in the Loddiges Collection, now the property of his grandson.

### GENUS XIII. *Rhodopis*, Reich, Aufz. der Colib., 1853, p. 13.

TYPE: *O. vesper*, Lesson.

Bill nearly twice as long as the head, curved for its entire length, and wide at base. Frontal feathers projecting on the culmen and hiding the nostrils. Wings long, reaching beyond the middle of tail. Tail deeply forked, feathers graduated to their tips, which are pointed. Tarsi clothed. Sexes similar. Throat of brilliant hues.

33. RHODOPIS VESPER, Lesson, Ois. Mouches., 1829, p. 85.

*Calothorax vesper*, Gray, Gen. of Birds, vol. i., p. 110.

*Thaumastura vesper*, Bon, Compt. Rend., 1850, p. 383.

*Lucifer vesper*, Bon, Rev. and Mag. Zool., 1854, p. 257.

*Rhodopis vespera*, Reich, Aufz. der Colib., 1853, p. 13.

*Calliphlox vespera*, Reich, Troch. Enum., 1855, p. 10.

*Evening Humming Bird*, Gould, Mon. Troch., vol. iii., p. 154.

*Le Rhodopis vesper*, Muls., Hist. Nat. des. Ois., m. vol. iv., p. 24.

*Habitat.*—Peru.

*Male*.—Upperside pale bronzy-green. Rump rufous. Throat metallic amethystine red with purple-bluish reflections on the sides. Breast, abdomen, and under tail-coverts white. Flanks grey washed with green. Median rectrices olive-green, lateral bluish-black. Wings purplish-brown. Bill black.

Total length,  $5\frac{1}{4}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Upperside like the male. Throat white, speckled with brown spots. Rest of underside like the male.

My specimens were collected by Mr. Whitely in Peru.

\*34. RHODOPIS ATACAMENSIS, Leyb, Ann. Univ. Santiago, Chili, 1869.

*Atacaman's Evening Humming Bird.*

*L'Oiseau mouche d'Atacaman.*

*Habitat*.—Chili.

The only two specimens, male and female, which I have seen in the British Museum are exactly like the preceding species, but much smaller and slightly more rufous on the upperside. They were collected by Markham in 1880, at Payta, Peru. They are rather poor skins.

GENUS XIX. **Thaumastura**, Bon, Consp. Gen. Av. 1850.  
Vol. i., p. 85.

*Phaetornis*, Tschudi, Consp., 1844, p. 37.

*Cora*, Reich, Bon. Ann. Sc. Nat. 1834, p. 138.

TYPE: *O. cora*, Lesson.

Bill short, straight, wide at base. Wings long. Tarsi partially clothed. Middle pair of rectrices almost hidden in coverts, next on either side greatly elongated and longest, remainder much shorter and decreasing in length to the outermost one. All of them very narrow but of uniform width to their entire length.

*Habitat*.—Peru.

35. THAUMASTURA CORA, Less and Garn, Voy. de la Coq. p. 13.

*Trochilus (Phaetornis) cora*, Tschud, Consp. p. 37.

*Calothorax cora*, Gray, Gen. of Birds, vol i., p. 110.

*Lucifer corae*, Reich, Troch. Enum. 1855, p. 10.

*Cora's Shear-tail*, Gould, Mon. Troch., vol. iii., p. 153.

*Le Thaumasture de Cora*, Muls. Hist. Nat. Ois. m. t. iv., p. 9.

*Habitat*.—Peru.

*Male*.—Upperside pale golden-green. Throat metallic crimson with blue reflections on the sides. Breast and abdomen white. Flanks and undertail-coverts white-washed with pale golden-green. Tail black on outer web, white nearly to the tip on inner, tip black. Bill black.

Total length,  $5\frac{7}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail  $3\frac{7}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside pale golden-green. Throat white, speckled with pale green. Breast, abdomen, and under tail-coverts white. Flanks white-washed with pale green. Middle tail feathers green on inner web, white on outer with black tip, lateral white with a broad subterminal black band. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{1}{2}$ .

Dedicated by Lesson to Cora, Priestess of the Sun. I have several specimens of this fine species collected by Mr. Whitely in Peru. Two come from Ex Collection, Costa de Beauregard.

GENUS XV. *Heliactin*, Boié Isis, 1831, p. 546.

*Heliactinia*, Reich, Aufz der Colib. 1853, p. 12.

*Heliactinus*, Burm, Th. Bras. 1854-56, t. ii., p. 356.

TYPE T. *cornuta*., Pr. Max.

Bill longer than the head, slender terminating in a sharp point. On either side of head a tuft of feathers forming a short elevated crest. Wings long pointed. Four medium rectrices longest, broad at base, and graduating to a point. Tarsi bare. Sexes unlike.

*Habitat*.—Brazil.

36. HELIACTIN CORNUTA, Pr. Max, Beit zur Naturg von Braz, p. 99.

*Trochilus dilophus*, Vieill, Ency. Meth., vol. ii., p. 573.

*Trochilus bilophus*, Temm, Plan Colo, p. 18.

*Mellisuga cornuta*, Gray, Gen. of Birds, vol. i., p. 113.

*Mellisuga bilopha*, Steph, Gen. Zool., vol. xiv., p. 251.

*Ornysmia chrysolopha*, Less. Ois. Mouch, 1829, p. 55.

*Heliactina chrysolopha*, Reich, Aufz der Colib. 1853, p. 12.

*Heliactinus cornutus*, Burm, Th. Braz., vol. ii., p. 356.

*Sun Gem*, Gould, Mon. Troch. vol. iv p. 212.

*l'Heliactin aux huppés d'or*, Muls. Hist. Nat. des Ois. m. t. iv., p. 5.

*Habitat*.—Brazil.

*Male*.—Forehead and crown shining greenish-blue. Above the eyes a tuft of lengthened feathers, fiery crimson at base changing to bright gold at tip. Upperside golden-green. Throat with a tuft of long feathers covering the middle of breast, velvety black. Breast and abdomen pure white. Flanks bronzy-green. Median rectrices olive-green, blackish at tip, the next white with bronzy-green bar starting from near the base to half their length, the remaining three white with a wide black band in the middle. Bill and feet black.

Total length,  $4\frac{1}{4}$  in. Wing, 2. Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden-green. Throat and abdomen reddish white. Flanks golden-green. Median rectrices bronzy-green, lateral bronzy-green at base, changing to black, apical half white. Bill black.

This wonderful species was discovered by Prince of Wied during his voyage in Brazil, where it was abundant then; it is very seldom sent from that country now and it is rather scarce in the collections.

I have several specimens from Bahia.

GENUS XVI. **Doricha**, Reich, Aufz. der. Colib., 1853, p. 12.

*Elisa* (Reich), Bon. Ann. Sc. Nat., 1854, p. 138.

*Myrtis*, Cab and Heine, Mus. Hein., 1860, t. iii., 59.

*Dolicha*, Heine, Journal fur Ornith., 1863, p. 208.

*Amathusia*, Muls. and Verr, Class Troch., 1865, p. 85.

*Egolia*, Muls. and Verr, Class Troch., 1865, p. 86.

*Amalasia*, Muls. Cat. Ois. m. 1875, p. 29.

*Amalusia*, Muls. Hist. Nat. Ois. m. 1877, t. ix., p. 15.

TYPE *T. enicurus*., Vieillot.

Bill longer than the head, slender, curved for its whole length. Wings moderate. Tail long, medium feathers nearly hidden in their coverts, two outer ones nearly equal and longest. Feet small. Sexes unlike.

*Habitat*.—Bahamas, Mexico, Guatemala, Costa Rica and Veragua.

37. **DORICHA ENICURA**, Vieill, Nouv. Dict. Hist. Nat., 1817, t. 23, p. 429.

*Ornysmia heteropygia*, Less. Ois. Mouch., 1829, p. 72.

*Trochilus swainsoni*, Less. Trochil., 1831, p. 167.



*Calothorax enicura*, Gray, Gen. Birds, vol. i., p. 110.  
*Lucifer enicurus*, Bon, Rev. and Magas. Zool., 1854, p. 257.  
*Calliphlox henicura*, Reich, Troch. Enum., 1855, p. 10.  
*Thaumastura enicura*, Gould, Mon. Troch., vol. iii., p. 157.  
*Myrtis enicura*, Cab and Heine, Mus. Hein., 1869, t. iii., p. 59.

*Amalasia enicura*, Muls., Cat. Ois., m. 1875, p. 29.

*Amalusia enicura*, Muls., Hist. Nat. Ois., m. 1877, t. iv, 16.

*Slender Shear-tail*, Gould, Mon., Troch, vol. iii., p. 157.

*L. Amalusie à queue singulière* Muls., Hist. Nat. Ois., m. t. iv., p. 17.

*Habitat*.—Guatemala.

*Male*.—Upperside and flanks golden-green. Chin black. Throat metallic purple with blue reflections. Breast and abdomen pale buff, sometimes deeper. Lateral rectrices, purplish-black; inner webs of two outer feathers narrowly margined with buff. Median rectrices shining grass-green. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{3}{4}$ .

*Female*.—Upperside, golden-green. Median rectrices, shining grass-green. Lores and ear-coverts, blackish-brown. Underside, buff, a tuft of feathers (as in the males), under the thigh, white. Tail feathers next the middle ones, rufous at base, then black with white tips. Bill, black.

Total length, 3 in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{3}{4}$ .

This species is rather abundant in Coban, Guatemala.

All the specimens of my collection are from that locality.

38. *DORICHA ELIZAE*, Less and Delattre Rev. Zool., 1839, p. 20.

*Myrtis eliza*, Reich, Aufz. der Colib., 1853, p. 13.

*Lucifer eliza*, Bon. Rev. et Magas de Zool., 1854, p. 227.

*Calothorax eliza*, Gray, Gen. Birds, vol. i., p. 110.

*Thaumastura elizae*, Gould, Mon. Troch., vol. iii., pl. 155.

*Amalasia elizae*, Muls., Cat. Ois., m. 1875, p. 29.

*Amalusia elizae*, Muls., Hist. Nat. Ois., m. 1877, t. iv, p. 20.

*Mexican Shear-tail*, Gould, Mon. Troch., vol. iii., p. 175.

*L. Amaluzie d'eliza*, Muls., Hist. Nat. Ois., m. 1877., t. iv., p. 20.

*Habitat*.—Jalapa, Yucatan (Mexico).

*Male*.—Upperside and flanks pale bronzy-green. Throat metallic purple-crimson with blue reflections. Breast, abdomen, and undertail-coverts white. Uppertail-coverts bronzy-green. Middle tail feathers greenish on inner webs, buff on outer. Lateral purplish-black, two next the outermost black margined with buff on the inner webs. Bill black.

Total length,  $3\frac{3}{4}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{3}{4}$ .

*Female*.—Upperside golden-green. Underside white tinged with buff. Median rectrices green edged with buff in the centre and tipped black, the remainder buff at base, then black with white tips.

This rare species was discovered by Delattre at Pasos del Toro, between Vera Cruz and Jalapa, Mexico.

I have three specimens in my collection. One from Ex Collection Costa de Beauregard, the other two were collected by Mr. Gaumer, at Progreso, Yucatan, in October, 1878.

39. *DORYCHA BRYANTHAE*, Lawr, Ann. N.Y. Lyc., Nat. Hist., 1867, vol. viii., p. 483.

*Bryant's Wood Star*, Gould, Suppl., Mon. Troch., pl. 46.

*La Doriche de Bryant*, Muls., Hist. Nat. Ois. m. t. iv., p. 43.

*Habitat*.—Costa Rica, Veragua.

*Male*.—Upperside dark golden-green. Upper tail-coverts dark green internally, black externally. Throat metallic crimson. Breast white, tinged with pale buff. Abdomen deep rufous. Flanks golden-green. Undertail-coverts green, margined with rufous. Tail purplish-black, the rectrices margined on their inner webs rufous. Bill black.

Total length, 4-in. Wing,  $1\frac{3}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside golden-green. Middle tail feathers grass-green, then purplish-black, with rufous tips. Throat and breast pale rufous. Abdomen and undertail-coverts deep rufous. Sides of neck and upper part of flanks dark green. Bill black.

Total length,  $3\frac{1}{2}$  in. Wing,  $1\frac{5}{8}$ . Tail, 1. Culmen,  $\frac{7}{8}$ .

This species was discovered by Mr. Carmiol in Costa Rica, February, 1867.

It was dedicated by Mr. Lawrence to Mrs. Bryant, of Boston.

I have a fine series of this species captured in Costa Rica and Veragua.

40. DORYCHA EVELYNÆ, Bourc, P.Z.S. 1847, p. 44.

*Calothorax evelynæ*, Gray, Gen. of Birds, vol. i., p. 110.

*Lucifer evelynæ*, Reich, Troch. Enum., p. 10.

*Calothorax evillina*, Bon. Rev. and Mag. Zool., 1854, p. 257.

*Trochilus bahamensis*, Bryant, Proceed. Nat. Hist. Soc., Boston, 1859, vol. vii., p. 106.

*Bahama Wood Star*, Gould, Mon. Troch., vol. iii., p. 156.

*La Doriche d'Evelyne*, Muls., Hist. Nat. Ois. m. t. iv., p. 84.

*Habitat.*—Nassau and Providence, "Bahamas."

*Male.*—Upperside pale golden-green. Throat metallic crimson, with violet reflections at base. Breast white. Abdomen rufous. Flanks green, mingled with rufous. Undertail-coverts buffy-white. Median rectrices purple-black; the inner web of all, excepting that of the internal feather, rufous. Bill black.

Total length,  $3\frac{1}{2}$ -in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{3}{4}$ .

*Female.*—Upperside pale green. Throat buffy-white. Abdomen and undertail-coverts rufous. Middle tail-feathers bronzy-green, lateral rufous, with a sub-terminal black band. Bill black.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{1}{2}$ . Tail, 1. Culmen,  $\frac{5}{8}$ .

This species is very rare in the collections. I have only one fine male, collected at Long Island, Bahamas, by Chas. B. Cory, of Boston, and graciously given to me.

41. DORYCHA LYRURA, Gould, Ann. and Mag. Nat. Hist., 1869, vol. iv., p. 111.

*Lyre shaped Wood Star*, Gould, Suppl. Mon. Troch., p. 47.

*La Doryche petite Lyre*, Muls. Hist. Nat. Ois. m. t. iv., p. 41.

*Habitat.*—Inagua, Bahamas.

*Male.*—Upperside pale bronze-green. Forehead and throat metallic purplish-crimson, with blue reflections forming a large metallic blue band at base. Breast white. Abdomen and undertail-coverts rufous. Flanks golden-green. Tail, lyre-shaped, feathers turning outwards at tips, purplish-black, all the feathers except the middle and outermost ones with inner web rufous. Bill black.



Total length,  $3\frac{1}{2}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside pale green. Throat and breast dull white. Abdomen and undertail-coverts rufous. Flanks rufous, tinged with green. Tail rounded. Median pair shining bluish-green, remainder buff at base, with a broad black central band and tips dull white. Bill black.

Total length,  $3\frac{1}{2}$  ins. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

This is also a very rare species. I have two very fine male specimens and one female. One male was graciously offered to me by the Authorities of the Smithsonian Institution when I visited this Magnificent Institution in 1876. It was collected by Doctor Bryant at Inagua. The two other specimens were presented to me by my friend, Mr. Chas. Cory, of Boston. They were collected by Mr. C. L. Maynard at Inagua.

GENUS XVII. **Calliphlox**, Boié Isis, 1831, p. 544.

*Philodice*, Muls. and Verr, Class. Troch., 1865, p. 86.

TYPE: *T. Amethystinus*, Gmelin.

Bill shorter than the head, straight, slightly curved at tip. Tail long, deeply forked, feathers narrow. Sexes unlike.

*Habitat*.—Trinidad, Venezuela, Guiana, Brazil.

42. CALLIPHLOX AMETHYSTINA, Gmel., Syst. Nat., 1788, vol. i., p. 496.

*Mellisuga amethystina*, Steph., Gen. Zool., vol. xiv., p. 243.

*Trochilus brevicauda*, Spix, Av. Braz., vol. i., p. 79.

*Ornysmia amethystina*, Less, Oiseaux. Mou., 1829, p. 150.

*Ornysmia amethystoides*, Less, Troch., 1831, p. 79.

*Mellisuga amethystoides*, Gray, Gen. of Birds, vol. i., p. 113.

*Trochilus campestris*, Pr. Max, Beit. Naturg. Bras., p. 73.

*Tryphaena amethystina*, Bon. Consp. Gen. Av., 1850, vol. i., p. 84.

*Tryphaena amethystoides*, Bon. Consp. Gen. Av., 1850, vol. i., p. 84.

*Calliphlox amethystoides*, Reich, Aufz. der Colib., 1853, p. 12.

*The Amethyst*, Gould, Mon. Troch., vol. iii., p. 159.

*Le Calliphlox amethyste*, Muls., Hist. Nat. Ois. m. t. iv., p. 46.

*Habitat*.—Trinidad, Venezuela, Guiana, Brazil.

*Male*.—Upperside bronzy-green. Throat metallic amethyst, beneath which is a band of dull white. Flanks green. Abdomen gray. Undertail-coverts green edged with gray. Central tail feathers green, lateral purplish brown. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden-green. Underside pale gray. Throat spotted with brown. Medium rectrices bright green, laterals have base purplish-gray washed with green, remaining part black with white tips. Slightly smaller than male.

It is rather common in Brazil and Guiana.

43. CALLIPHLOX RORAIMAE, Boucard, H. Bird, vol. i., p. 52.

*Roraima's Amethyst.*

*L'Améthyste de Roraima.*

*Habitat*.—Roraima, B. Guiana.

*Male*.—Upperside dark bronzy-green. Throat metallic amethyst-red as in *Selasphorus platycercus*, beneath which is a narrow band of white. Abdomen and flanks green washed with gray. Upper and undertail-coverts green. Tail purplish-brown. Bill black.

Total length,  $3\frac{1}{2}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronzy-green. Throat white with a central spot, amethyst-red, beneath which is a narrow grayish band. Sides of neck and breast golden-green. Flanks, abdomen and undertail-coverts, rufous. Tail purple-brown with rufous tips. Bill black.

This species was discovered by Mr. Henry Whitely at Roraima, British Guiana.

Types in Boucard's Museum.

44. CALLIPHLOX MITCHELLI, Bourc, P.Z.S., 1847, p. 47.

*Mellisuga mitchelli*, Gray, Gen. of Birds, vol. i., p. 113.

*Calothorax mitchelli*, Reich., Aufz. der Colib, 1853, p. 13.

*Lucifer mitchelli*, Reich. Troch. Enum., 1855, p. 10.

*Tryphaena mitchelli*, Bon. Rev. and Mag. Zool., 1854, p. 257.

*Mitchell's Amethyst*, Gould., Mon. Troch., vol. iii., p. 160.

*Le Calliphlox de Mitchel*, Muls., Hist. Nat. Ois. m. vol. iv., p. 50.

*Habitat*.—Ecuador.

*Male*.—Upperside dark green. Throat dark metallic-violet. Breast grayish-white. Abdomen and flanks dark green, washed with buff near the thigh. Tail and wing dark purple. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{1}{5}$ .

*Female*.—Upperside dark green. Underside buff, changing to rufous on the abdomen and undertail coverts. Middletail feathers bronze-green, lateral rufous with subterminal black bar. Bill black.

Total length,  $2\frac{5}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{1}{5}$ .

This rare species has been dedicated by Mr. Mulsant to Mr. Mitchel, the collaborator of Doctor Gray, for the Genera of Birds.

I have several specimens collected by Buckley in Ecuador.

## FAMILY II. LOPHORNIDÆ,

### OR FAMILY OF COQUETTES.

Body small, sometimes very minute. Bill slender, short and straight. Head usually crested. Throat, in males very brilliant, in some, the feathers of the sides of throat are very elongated and beautifully spotted, forming a beautiful collar. Tail rounded in some as in the genus *Lophornis*. In others, the rectrices are of variable forms, sometimes very long, narrow and acute, as in the genus *Gouldia*, in others, short and acute with the shaft of outermost very long and terminating with a spatula as in the genus *Discura*. One of the principal characters of the family which is constant for all the species is the white or buff band crossing the rump in both sexes. Sexes unlike.

TYPE: *Lophornis*, Lesson, Hist. Nat. Ois. mou. 1829, p. 37.

GENUS XVIII. *Lophornis*, Less. Hist. Nat. Ois. Mouch, p. 37, 1829.

*Bellatrix*, Boié Isis, 1831, p. 545.

*Lophorinus*, Bon. Rev. et Mag. Zool., 1854, p. 257.

*Polemistria*, Cab and Heyne. Mus. Hein., 1860, t. iii., p. 63.

*Telamon*, Muls. and Verr., Class. Troch., 1865, p. 75.

*Paphosia*, Muls. and Verr., Class. Troch., 1865, p. 75.

*Dialia*, Muls. Cat. Ois. Mou., 1875, p. 27.

*Idas*, Muls. Cat. Ois. Mou., 1875, p. 27.

*Aurinia*, Muls. Cat. Ois. Mou., 1875, p. 27.

TYPE *T. ornatus*, Bodd.

Bill short and straight. Head crested. Throat metallic, with elongated ornamental feathers on the sides, more or less lengthened, and projecting outwards. Tail rounded. Females dull.

*Habitat*.—Mexico, Central America, Trinidad, Guiana, Brazil, Venezuela, Columbia, Ecuador, Peru and Bolivia.

45. *LOPHORNIS ORNATUS*, Bodd. Plan. enlum. d'Aub., 1783, pl. 640, fig. 3.

*Ornismya ornata*, Less. Ois. Mouch. 1829, p. 139.

*Mellisuga ornata*, Gray, Gen. Birds, vol. i., p. 13.

*Lophornis auratus*, Bon. Consp. Gen. Avi., 1850, vol. i., p. 83.

*Lophornis ornata*, Reich. Aufz der Colib. 1883, p. 12.

*Tufted Coquette*, Gould, Mon. Troch., vol. iii., p. 117.

*Le Lophornis Huppe-Col*, Muls. Hist. Nat. Ois., m. 1876, t. iii., p. 216.

*Habitat*.—Trinidad, Venezuela, Guiana.

*Male*.—Head and crest shining dark chestnut. Forehead and throat metallic green. Upperside golden-green. Rump and uppertail-coverts bronzy-brown, a white band across the rump, sometimes this band is slightly buff. On each side of throat a series of lengthened graduated feathers, pale buff, each feather tipped with metallic green. Underside bronzy-green with a narrow rufous tinge under the throat. Undertail-coverts greenish-buff. Tail brownish-chestnut externally margined and tipped with bronzy-green. Bill flesh color, black at tips.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail, 1. Culmen,  $\frac{3}{8}$ .

*Female*.—Upper and underside bronzy-green. Front throat and upper part of breast buff. Across the rump a band of buffy white. Tail buff with a broad subterminal blackish band with golden-green reflections. Wings purplish-black.

46. *LOPHORNIS GOULDI*, Lesson, Trochil., 1831-33, p. 103.

*Bellatrix gouldi*, Reich. Aufz der Col., 1853, p. 12.

*Gould's Coquette*, Gould, Mon. Troch., vol. iii., p. 118.

*Le Lophornis de Gould*, Muls., Hist. Nat. Ois., m. vol. iii., p. 219.

*Habitat*.—Para. (Brazil.)

*Male*.—Crest chestnut-red. Upperside bronzy-green. Rump reddish-brown crossed by a band of white. Forehead, throat and breast metallic green, with golden reflections. On the other

side lengthened graduated feathers pure white with a round metallic golden green spot at tip. Abdomen and flanks dark bronzy-green. Tail chestnut-red, with margins and tips bronzy-green. Bill flesh color with brown tips.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{4}{8}$ . Tail, 1. Culmen,  $\frac{3}{8}$ .

*Female*.—Upper side golden-green. Rump reddish-bronze crossed by a band of buffy-white. Throat buff, spotted dark brown. Breast white, with metallic golden spots. Abdomen and flanks golden-green. Median rectrices bronzy-green, lateral buff with bronzy-green subterminal bar. Same length as male.

I have one very fine adult pair of this extremely rare species, collected many years ago, near Para.

47. *LOPHORNIS MAGNIFICUS*, Vieill, Nouv. Dict. Hist. Nat., 1817, t. vii., p. 367.

*Oiseau mouche huppe-col blanc*, Vieillot.

*Colibri helios*, Spix, Av. Bras., 1824, t. i., p. 81

*Trochilus decorus*, Licht, Doubl., p. 14.

*Ornismya magnifica*, Less. Man. Ornith., t. ii., p. 80.

*Ornismya strumaria*, Less. Ois. Mou., 1829, p. 143.

*Lophornis strumaria*, Less. Trait. Ornith, 1831, p. 285.

*Mellisuga magnifica*, Gray, Gen. Birds, vol. i., p. 113.

*Bellatrix magnifica*, Reich. Aufz der Colib., 1853, p. 12.

*Telamon magnificus*, Gray, Handl. Birds, vol. i., p. 147.

*Idas magnificus*, Muls. Hist. Nat. Ois. Mouch., 1876, vol. iii., p. 211.

*Frisled Coquette*, Gould, Mon. Troch., vol. iii., p. 119.

*l'Idas magnifique*, Muls., Hist. Nat. Ois. Mouch., 1876, vol. iii., p. 212.

*Habitat*.—Brazil.

*Male*.—Very like *L. gouldi* in size and coloration. The principal differences are that the elongated feathers of the neck have the tips crossed by a bar of metallic green instead of a spot. At base of throat, the feathers are rufous instead of pure white. The abdomen and flanks are of a lighter green with a grayish tinge.

Total length,  $2\frac{1}{2}$  in. Wing,  $1\frac{1}{2}$ . Tail, 1. Culmen,  $\frac{3}{8}$ .

*Female*.—Exactly like *L. gouldi*.

This charming species was discovered by Mr. Delalande, a French Naturalist, who explored Brazil.



48. *LOPHORNIS HELENÆ*, Delattre, Echo du Monde savant, 1843, p. 1068.

*Mellisuga helenæ*, Gray, Gen. of Birds, vol. i., p. 133.

*Paphiosa helenæ*, Muls. Hist. Nat. Ois. Mou. 1876, vol. iii., p. 205.

*Princess Helena's Coquette*, Gould, Mon. Troch., vol. iii., p. 123.

*La Paphosie d'Hélène*, Muls. Hist. Nat. Ois. Mou. 1876, vol. iii., p. 205.

*Habitat*.—Mexico, Guatemala.

*Male*.—Top of head and crest dark metallic green. In the middle of the occiput, six long slender greenish-black feathers, forming a crest extending as far back as the rump. Upperside golden-green. Rump bronzy-brown, crossed by a white line, sometimes slightly rufous. Throat metallic golden-green, surrounded by long shining bluish-black feathers. On each side of the neck a few elongated buff feathers. Breast golden-green. Flanks and abdomen pure white, each feather with a golden spot on tip. Undertail-coverts dark rufous. Median rectrices green, rufous at base, lateral deep rufous, margined with brown. Bill flesh color with black tips.

Total length,  $2\frac{1}{2}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside golden-green. Rump black, crossed above with a white line. Wing, purple-black. Throat rufous-white with small brown-golden spots. Breast golden. Abdomen and flanks white with golden spots. Median rectrices, grayish-green, then black with a rufous spot at tip, lateral deep rufous, black in the middle.

This beautiful species was discovered at Jalapa, Mexico, in 1843, by the well known naturalist, Mr. Delattre. It was dedicated by him to Princess Hélène d'Orléans.

I have found this species at Tospam, near Cordoba, Mexico, and at Sante Comapam, near San Andres Tuxtla, department of Vera Cruz, "Mexico." It is a very rare species. All the specimens which I have from Guatemala were procured near Coban, Alta Vera Paz.

49. *LOPHORNIS ADORABILIS*, Salv., P.Z.S., 1870, p. 207.

*Dialia adorabilis*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 208.

*Salvin's Coquette*, Gould. Mon. Troch. Suppl., 1886, p. 49.

*La Dialie adorable*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 209.

*Habitat*.—Chiriqui, Columbia.

*Male*.—Forehead metallic ruby red. Crown pure white with elongated feathers on the occiput, forming a crest. The few narrow lengthened dark metallic green feathers, mentioned by Mr. Daniel G. Elliot, on each side of the occiput, do not exist in the male specimen which I possess. These feathers exist on each side of the neck, they are very long and ornament the throat in a peculiar manner. Upperside bronzy-green. Rump dark purple crossed by a narrow pale rufous band. Throat metallic grass-green. Breast pure white. Abdomen, flanks and undertail-coverts rufous, with a few bronzy-green feathers on flanks. Median rectrices rufous edged with bronzy-green, lateral rufous with external edges bronzy-green. Wings purple. Bill, flesh color, with black tips.

Total length, 3-in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Head dark brown. Upperside bronzy-green. Throat and breast white, spotted with brown. Tail deep buff with a subterminal black bar. Flanks bronzy-green. Abdomen and undertail-coverts deep rufous. Rump as in the male.

This exceedingly rare and charming species was discovered at Bugaba, near the Volcano of Chiriqui, by Mr. Arcé, a native of Guatemala, to whom Science is indebted for several new species.

I have only one male specimen, sent to me by Mr. Arcé.

50. *LOPHORNIS PAVONINUS*, Salv. & Godm. Ibis., 1882, p. 81.

*Roraima Coquette*, Gould, Mon. Troch., Suppl., pl. 50.

*Le Lophornis de Whitely*.

*Habitat*.—Roraima, British Guiana.

*Male*.—Head shining golden-green, with a velvety black bar in the centre. Upperside dark grass-green. Rump bronzy-green crossed by a narrow white band. Throat dark bronzy-green with black reflections. On the sides of the neck, graduated elongated feathers extending over the rufous at base with a small white spot, then metallic-green with a round black spot in the centre near the tip of each feather, resembling somewhat to the colouring of the feathers of a peacock-tail. It is quite ornamental and enhances greatly the beauty of this bird. Breast, abdomen, and flanks dark bronzy-green, nearly black in

centre of abdomen. Undertail-coverts dark grey. Tail bronzy-green with narrow white tips. Wings purple-black. Bill black.

Total length, 3 in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female.* Upperside dark grass-green. Rump bronzy-green crossed by a narrow white band. Throat, breast, and abdomen rufous-white, streaked with black. Flanks bronzy-green. Undertail-coverts rufous with a bronzy-green band in centre. Median rectrices bronzy-green with black tips, lateral bronzy-green with a subterminal black bar and greyish white tips. Wings purple. Bill black.

This magnificent species was lately discovered by the well-known collector, Mr. H. Whitely, at Roraima, British Guiana.

I have two very fine pairs purchased from Mr. Whitely.

51. *LOPHORNIS VERREAUXI*, Bourc. Rev. Zool., 1853, p. 193.

*Bellatrix verreauxi*, Bon. Rev. et Mag. Zool, 1854, p. 257.

*Polemistria verreauxi*, Cab. and Hein. Mus. Hein., 1860, t. iii., p. 63.

*Lophornis insignibarb*, Simon. Bull. Soc. Zool. France, xv., p. 17.

*Peruvian Coquette*, Gould. Mon. Troch., vol. iii., p. 127.

*Polémistrie de Verreaux*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 221.

*Columbian Coquette.*

*Habitat.*—Columbia.

*Male.*—Forehead and patch behind the eye, bright metallic grass-green. Crest elongated, deep purplish-bronze, each feather margined and tipped with dark green. Back and flanks dark grass-green. Rump bronze-green, crossed above with a white band. Throat and sides of neck pale metallic green, the long feathers of neck tipped white. Centre of breast and abdomen dark green with black reflections. Upper tail-coverts bronzy-purple. Tail purplish-bronze with external margins bronzy-green. Wing purplish-black. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female.*—Head dark brown. Upperside dark grass-green. A line of white on sides of throat. Throat and abdomen black, spotted with pale buff. Line across the rump pale buff. Tail bronze-green at base changing to blackish-brown, all the lateral feathers tipped white. Undertail coverts blackish brown. Bill black.



This species, received by Mr. Bourcier from Columbia, was dedicated by him to his friend, the well known Ornithologist, Mr. Edouard Verreaux.

Its proper name should be the Columbian Coquette, as this species is restricted to Columbia, as far as I know.

I have seen a young male specimen from Columbia in the collection of my friend, Mr. Eugène Simon, of Paris. It was without the elongated feathers of the neck, which were replaced by a beautiful metallic grass-green throat. My friend, Mr. Simon, has described this bird and given the name of *L. insignibarbis*; but I am quite certain that it is only the livery of a young male of *L. verreauxi*, just before taking the plumage of an adult bird.

## 52. LOPHORNIS HAUXWELLI, N. Sp.

*Hauxwell's Coquette.*

*Le Lophornis d'Hauxwell.*

*Habitat.*—Nauta, Upper-Amazons.

*Male.*—Very much like the preceding species, with which it has always been mixed, but having two fine adult pairs of this bird, collected by Mr. Hauxwell, at Nauta, I am able to point the differences which exist between the two species. All the upperside of this species is bronzy-green and not dark green as in *L. verreauxi*, the band across the rump is pale rufous in both sexes, the tail is reddish-purple with external margins dark brown instead of purplish-bronze, the uppertail-coverts are crimson-purple, instead of bronzy-purple. The underside is exactly the same as *L. verreauxi*.

The female has also the back of a lighter green than *L. verreauxi*, the chin and line under the eyes is pale buff, the flanks are golden-green spotted with buff, the tail is grayish at base, then dark bronze, nearly black, with the lateral feathers tipped with a large grayish spot.

I dedicate this species to Mr. Hauxwell, its discoverer.

## 53. LOPHORNIS CHALYBEA, Vieill, Enc. Méth., vol. ii., p. 574.

*Trochilus festivus*, Licht. Doubl., p. 14.

*Colibri mystax*, Spix. Av. Bras., 1824, t. i., p. 82.

*Ornismya vieillotii*, Less. Hist. Nat. Ois. Mou., 1829, p. 186.

*Mellisuga chalybea*, Gray, Gen. Birds, vol. i., p. 113.

*Lophornis audeniti*, Bon. Consp. Gen. Av., 1850, vol. i., p. 84.

*Festive Coquette*, Gould, Mon. Troch., vol. iii., p. 124.

*La Polémistrie de Vieillot*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 230.

*Habitat*.—Brazil.

*Male*.—Forehead, line under the eyes and ear-coverts metallic grass-green. Upperside bronzy-green. Rump dark purple crossed by a narrow pale rufous band. Throat dark glossy green, the long feathers on the sides tipped white. Breast and abdomen rufous-white. Flanks brown with bronze reflections. Uppertail-coverts reddish-brown. Tail bronzy-brown tipped with rufous-gray. Wings purplish-black. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{3}{4}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside greenish-bronze. Rump and line across as in male. Chin, line under the eyes and flanks buff. Breast and abdomen black spotted with buff. A white patch near the thigh as in the male. Tail bronzy-green at base, changing into dark bronzy-brown, tipped with grayish-buff.

54. *LOPHORNIS STICTOLOPHUS*, Salv. and Elliott Ibis., 1873, p. 280.

*Bellatrix reginae*, Reich. Aufz der Col., 1853, p. 12.

*Telamon stictolophus*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 201.

*Spangled Coquette*, Gould. Mon. Troch. vol. iii., p. 122.

*Le Telamon à huppe étroite*, Muls. Hist. Nat. Ois. Mou., 1876., vol. iii., p. 202.

*Habitat*.—Columbia, Venezuela, Ecuador.

*Male*.—Crest broad, dark reddish buff, each feather tipped with a green spot, the spots commencing in the centre of the crown. Upperside shining-green, reddish near the yellowish-white band crossing the rump. Rump and uppertail-coverts reddish-brown. Throat metallic-green, beneath which is a spot of white in the centre. Underside light shining-green, rufous in the centre of abdomen. Undertail-coverts buff. Tail brownish-chestnut, external feathers margined and tipped with bronzy-green. Wings purplish-brown. Bill flesh color with brown tips.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Head deep buff. Upperside bronzy-green. Rump bronzy-brown crossed by a band of pale buff. Throat pale buff spotted with blackish-brown. Breast and flanks bronzy-green.

Abdomen rufous. Tail buff with a broad subterminal blackish bar.

It is a rare species.

55. *LOPHORNIS DELATTREI*, Less. Rev. Zool., 1839, p. 19.

*Mellisuga delattrei*, Gray. Gen. Birds, vol. i., p. 113.

*Telamon delattrei*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 219.

*Delattre's Coquette*, Gould. Mon. Troch., vol. iii., p. 121.

*Le Telamon de Delattre*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 220.

*Habitat.*—Veragua, Panama and Columbia.

*Male.*—Differs only from *L. stictolophus*, by the green of the throat, which is lighter, the internal colour of tail which is entirely chestnut, and chiefly by the form of the crest which is pale rufous, and composed of graduated lengthened feathers very narrow and tipped with a very diminutive green spot, scarcely visible. Rest of plumage like the preceding species.

Total length, 3 in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{3}{8}$ .

*Female.*—Forehead light buff. Upperside bronzy-green. Rump reddish-bronze crossed by a band of white. Tail greenish-bronze with a broad subterminal purplish-black bar, tipped buff. Throat black, beneath which is a small whitish spot. Breast, abdomen and flanks bronzy-green. Undertail-coverts buff. Tail buff, with a central bar blackish-bronze.

Young male is very much like the female, but the chin is rufous and the throat spotted with green metallic feathers.

I have several specimens of both sexes of this species from Veragua, Panama, and Bogota, Columbia.

It was discovered by Delattre in Columbia, and dedicated to him by his friend Mr. Lesson, the well-known ornithological author.

56. *LOPHORNIS REGULUS*, Gould. P.Z.S., 1847, p. 89.

*Mellisuga regulus*, Gray, Gen. Birds, vol. i., p. 113.

*Lophornis lophotes*, Gould. Int. Troch., 1861, p. 83.

*Great Crested Croquette*, Gould. Mon. Troch., vol. iii., p. 120.

*Le Lophornis à grande huppe.*

*Habitat.*—Bolivia.

This species resembles very much to *L. delattrei*, but can be easily recognised by its crest which is much wider and shorter. Besides, the green spots on tips of crest-feathers are much larger. The green of the throat is darker and more brilliant; the line crossing the rump is pure white, and the bill is longer.

Total length,  $2\frac{3}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

In my opinion, it is a very good species, quite easy to distinguish from *L. delattrei*. It is rare.

The specimens which I have in my collection, were collected in Bolivia by the celebrated explorer Buckley.

GENUS XIX. **Gouldia**, Bon. Compt. Rend., 1850, p. 31.

*Popelaria*, Reich. Aufz. der Col., 1853, p. 12.

*Gouldomyia*, Bon. Rev. and Mag. Zool., 1854, p. 257.

*Prymnacantha*, Cab. and Hein. Mus. Hein., 1860., t. iii., p. 64.

*Tricolopha*, Heine. Journ. fur Ornith., 1863, p. 209.

*Mythinia*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 235.

TYPE: *T. langsdorffi*, Vieillot.

Bill about as long as the head. Rectrices lengthened, stiff, graduating to a fine point. Forehead ornamented with metalling feathers forming a sort of crest. Throat metallic. A white band across the rump as all the other species of the family, a tuft of white feathers on side of flanks over the thigh. Sexes unlike.

*Habitat*.--Veragua, Columbia, Ecuador, Peru, Bolivia, and Brazil.

57. GOULDIA LANGSDORFFI, Bonnat and Vieill. Ency. Méth., 1794, vol. ii., p. 574.

*Orthorhynchus langsdorffi*, Less. Man. Ornith., 1828., t. ii., p. 77.

*Ornismya langsdorffi*, Less. Ois. Mou., 1829, p. 102.

*Colibri hirundinaceus*, Spix. Av. Bras., 1824, vol. i., p. 80.

*Mellisuga langsdorffi*, Bon. Consp. Av., 1850, vol. i., p. 86.

*Prymnacantha langsdorffi*, Cab. and Hein. Mus. Hein., 1860, t. iii., p. 64.

*Langsdorff's Thorn-tail*, Gould. Mon. Troch., vol. iii., p. 127.

*Le Prymnacanthé de Langsdorff*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 230.

*Habitat.*—Brazil.

*Male.*—Crown throat and breast glittering metallic grass-green, bounded beneath by a line of fiery-red. Upperside golden-green, with a white band crossing the rump. Uppertail-coverts bronzy-green. Lower part of breast and centre of abdomen black. Flanks and rest of underside greenish-bronze washed with gray. Median rectrices steel-blue with white shafts, lateral steel-blue at base then brownish-gray, with the points slightly darker. Wings purple-brown. Bill black.

Total length, 5-in. Wing,  $1\frac{1}{2}$ . Tail, 3. Culmen,  $\frac{1}{2}$ .

*Female.*—Upperside golden-green, darker on head. Rump crossed by a white band. Chin and centre of throat black spotted white, a white line from the bill to the throat. Throat whitish spotted with metallic-green. Lower part of breast and centre of abdomen black, rest of abdomen white. Flanks golden-green washed with white. Median rectrices steel-blue tipped with gray, lateral bronze, with a subterminal bluish-black bar and gray tips.

Total length,  $4\frac{1}{2}$ -in. Wing,  $1\frac{1}{2}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{1}{2}$ .

This very fine species was dedicated to Baron de Langsdorff by Vieillot.

58. GOULDIA MELANOSTERNUM, Gould. Ann. and Mag. Nat. Hist., 1868, p. 323.

*Black bellied Thorn-tail.*

*Le Prymnacanthé à ventre noir.*

*Habitat.*—Ecuador and Peru.

*Male.*—This species is only distinguishable from the preceding by all the top of head, which is metallic grass-green, and the line under the breast, which is golden instead of fiery red.

The specimens which I have of this rare species were collected by Messrs. Hauxwell in Peru, and Buckley in Ecuador.

59. GOULDIA POPELAIREI, Du. Bus. Esquiss. Ornith., 1845, p. 6.

*Mellisuga popelairi*, Gray, Gen. of Birds, vol. i., p. 113.

*Popelairia tricholopha*, Reich. Aufz. der Col., 1853, p. 12.

*Prymnacantha popelairi*, Cab. and Hein. Mus. Hein., 1860, t. iii., p. 64.



*Tricolopha popelairei*, Heine. Journ. fur Ornith., 1863, p. 209.

*Popelaire's Thorn-tail*, Gould. Mon. Troch., vol. iii., p. 127.

*Le Tricolophe de Popelaire*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 236.

*Habitat.*—Columbia, Ecuador, Peru.

*Male.*—Head and throat metallic grass-green. Several long black hair-like feathers extending beyond the crest, the two middle ones reaching the tail. Back and uppertail-coverts bronzy-green. Rump greenish-black, crossed by a white band, bluish-black underneath the band. Breast and abdomen black with bluish reflections. Flanks bronzy-green passing to brownish gray. Tail, steel-blue, with conspicuous white shafts, especially on the underside. Undertail-coverts whitish. Thighs rufous. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $2\frac{4}{5}$ . Culmen,  $\frac{1}{2}$ .

*Female.*—Upperside, sides of breast, flanks and uppertail-coverts golden-green. White band across the rump, underneath bluish-black. Chin, breast, and centre of abdomen dark brown, nearly black. Line on each side of neck white. Tail short, gray at base, then steel-blue with tips white. Wings purple-brown. Thighs rufous. Bill black.

This very peculiar species was discovered in Perou by Baron Popelaire de Terloo, and was dedicated to him by Du-Bus. The type is in the Museum of Bruxelles.

All my specimens are from Columbia and Ecuador.

60. *GOULDIA CONVERSI*, Bourc and Muls. Ann. Soc. Agr. Lyon, 1846, p. 313.

*Mellisuga conversi*, Gray, Gen. Birds, vol. i., p. 113.

*Prymnacantha conversi*, Cab. and Hein. Mus. Hein., 1860, t. iii., p. 65.

*Conver's Thorntail*, Gould. Mon. Troch., vol. iii., p. 129.

*Le Prymnacanthé de Convers*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 243.

*Gouldia aequatorialis*, Berlepsch and Tacz, P.Z.S., 1883, p. 567.

*Habitat.*—Veragua, Columbia, Ecuador.

*Male.*—Head and throat shining dark green, elongated feathers beneath the throat, centre of breast bright green with bluish reflections, sometimes metallic blue. Upperside

dark bronze-green. Rump underneath the white band, sometimes dark purple-brown, sometimes coppery. Tail steel blue, with shafts pale brown upperside, and showy white underside. Wings purplish-brown. Bill black.

Total length, 4 in. Wing,  $1\frac{5}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden-green. Rump and white band as in male. Throat and centre of abdomen black. A white line under the eyes from the bill to the breast. Breast blackish washed with metallic green feathers. Flanks golden-green. Two large white patches between the lower part of abdomen and flanks. Tail short, upperside steel blue with white tips, underside gray at base, then steel blue with white tips. Bill black.

I have united *Gouldia aequatorialis*, Berlepsch and Tacz, with this species, because the characters given by these authors are not peculiar to the specimens from Ecuador. I have several specimens from Veragua and from Columbia coloured exactly the same as those from Ecuador.

This species was discovered by Mr. Convers, a French naturalist, established years ago in Bogota. It was dedicated to him by Messrs. Bourcier and Mulsant.

61\*. GOULDIA LÆTITIAE, Bourc. Ann. Soc. Lyon, 1852, p. 143.

*Prymnacantha lætitiae*, Cab. and Hein. Mus Hein., 1860, t. iii, p. 64.

*Mythinia lætitiae*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 245.

*Letitia's Thorntail*, Gould. Mon. Troch., vol. iii., p. 130.

*La Mythinie de Letitia*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 246.

*Habitat*.—Bolivia.

*Male*.—Head and throat glittering pale grass green. Upper-surface coppery-brown; band across the rump white. A white patch beneath the green of the throat. Upper parts of abdomen and flanks bronzy-green. Lower portion of belly gray. Upper tail-coverts red changing to golden-green. Tail black, shafts rufous. Undertail-coverts golden-green bordered with black. Bill maxilla black, mandible flesh-color at base, rest black.

Total length,  $3\frac{5}{8}$  in. Wing,  $1\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Unknown

The above description was taken from Elliot's Classification and Synopsis of the Trochilidae.

GENUS XX. **Discura**, Reich. Aufz der Colib, 1853, p. 8.

*Platurus*, Less. Ois. Mouch, 1829, p. 22.

*Ocreatus*, Gould, P.Z.S., 1846, p. 86.

*Discosura*, Bon. Compt. Rend., 1850, vol. i., p. 84.

TYPE; *T. longicauda*, Gmelin.

Bill short, straight, converging near the tip to a slender point. Male brilliantly coloured on the forehead and throat. White or rufous band crossing the rump as in all the other species of the family. Tail deeply forked, the outermost rectrices bare of webs near their tips, and terminating in a spatula. Sexes unlike.

*Habitat*.—Guiana, Brazil.

62. DISCURA LONGICAUDA, Gmel. Syst. Nat. 1788, vol. i., p. 498.

*Trochilus platurus*, Lath. Ind. Ornith, 1790, vol. i., p. 317.

*Mellisuga platara*, Steph. Gen. Zool., vol. xiv., p. 242.

*Trochilus bilophus*, Tem. Pl. Col., No. 18, fig. 3.

*Ornismya platara*, Less. Ois. Mou., 1829, p. 136.

*Ocreatus ligonicaudus*, Gould, P.Z.S., 1846, p. 86.

*Discosura longicauda*, Bon. Consp. Gen. Av., 1850, vol. i., p. 84.

*Discura*, Sp. Salv. Ibis., 1885, p. 434.

*Racket Tail*, Gould. Mon. Troch., vol. iii., p. 126.

*La Discure à raquettes*, Muls. Hist. Nat. Ois. Mou., 1876, vol. iii., p. 250.

*Habitat*.—Guiana, Brazil.

*Male*.—Head, throat and breast shining grass-green, a small black spot on chin. Upperside bronzy-green, rump crossed by a white band. In the specimens from Guiana, this band is pale buff. Flanks golden-green, a few feathers beneath the metallic green feathers of breast, silvery-green. Abdomen dark brown, nearly black, washed with golden feathers, lower part and undertail-coverts pale buff with white patch near the thigh. Tail purplish-brown with buff shafts. Shaft of outermost ones bare of webs near the tip, and terminating with a black spatula.



Wings purple brown. Bill black. In some of my specimens the upperside is reddish golden.

Total length, 4-in. Wing,  $1\frac{3}{4}$ . Tail, 2. Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside greenish-bronze. A white band across the rump. Throat white, spotted dark brown, centre black. Breast, flanks and lower part of abdomen whitish, tinged with green feathers, centre of abdomen blackish-brown washed with golden feathers. Tail short, dark gray, tipped with purplish-black and edged with white. Bill black. A small buff line at base of bill.

Total length 3 in.

There is a slight difference of coloration between the specimens from Guiana and Brazil; but I don't think it is enough to separate them.

### FAMILY III. CEPHALELOPIDAE.

OR FAMILY OF CROWNED HUMMING BIRDS.

Body moderate, sometimes very minute as in the genus *Microchera*. Bill short slender and straight, serrated at tips in the genus *Chrysolampis*. Feathers projecting on the culmen, especially so in the genera *Bellona* and *Chrysolampis*, in which they cover about half the length of the maxilla. Head crowned and brilliantly coloured. In the genus *Cephalolepis* one or two black elongated feathers projecting from the crown getting beyond half the length of the body. In some genera the throat is also brilliantly coloured. In the extraordinary and marvellous genus *Loddigesia* the outermost rectrices terminates suddenly with a broad rounded spatule, and the two posteriors undertail-coverts are very long, narrow, and pointed, longer than the whole body. Wings long, nearly reaching the end of tail. Tail rounded, excepting in the genus *Loddigesia*. Sexes unlike.

TYPE: *Cephalolepis*, Lodd, P.Z.S., 1830, p. 12.

GENUS XXI. *Cephalolepis*, Lodd, P.Z.S., 1830, p. 12.

*Smaragdites*, Reich. Syst. Av. Nat., 1849, p. 40.

*Orthorhynchus*, Burm. Th. Bras., 1856.

TYPE: *T. delalandi*, Vieillot.

Bill straight, mandible curved upwards at tip. Nostrils hidden. Head crested, from the centre, spread one or two long narrow

feathers nearly reaching the upper part of tail. Wings long. Feathers of tail, even in length, rounded, and lateral tipped white in both sexes. Tarsi bare. Sexes unlike.

*Habitat*.—Brazil.

67. CEPHALOLEPIS DELALANDII, Vieill. Nouv. Dict. Hist. Nat., t. xxii., p. 427.

*Trochilus versicolor*, Vieill. Nouv. Dict. Hist. Nat., t. xxiii., p. 430.

*Mellisuga delalandi*, Gray, Gen. of Birds.

*Cephalepis lalandii*, Bon. Consp. Gen. Av., 1850, vol. i., p. 83.

*Orthorhynchus delalandii*, Burm. Th. Bras., 1860, pt. ii., p. 351.

*Cephalepis leski*, Von. Pelz. Orn. Bras., 1868, p. 58.

*Delalande's Plover-Crest*, Gould. Mon. Troch., vol. iv., p. 208.

*Le Cephalepis de Delalande*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 188.

*Habitat*.—Brazil.

*Male*.—Head and crest metallic dark green with golden reflections on forehead, the two long feathers of crest black. Upperside shining bronzy-green. Median rectrices bronze-green, lateral bronze-green at base, then bluish-black with white tips. A white spot behind the eyes. Chin dark gray. Centre of throat, breast and abdomen shining violet-blue. Rest of underside dark gray. Undertail-coverts whitish gray, darker in centre of feathers, and sometimes washed with green. Wings purplish brown. Bill black.

Total length,  $3\frac{3}{8}$  in. Wing, 2. Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Upperside bronzy-green. Underside gray. Tail like that of male. Bill black.

Same size as male.

This beautiful species was dedicated by Vieillot to the celebrated naturalist Delalande, who probably is the discoverer of the species.

It is common in Brazil.

68. CEPHALOLEPIS LODDIGESI, Gould. P.Z.S., 1830, p. 12.

*Trochilus opisthocomus*, Licht. Nordm. Enum. Reise, 1835.

*Mellisuga loddigesi*, Gray. Gen. Birds, vol. i., p. 114.

*Cephalepis loddigesi*, Bon. Consp. Gen. Av., 1850, vol. i., p. 83.

*Orthorhynchus loddigesi*, Reich. Troch. Enum., 1855, p. 9.

*Loddiges' Plover Crest*, Gould. Mon. Troch., vol. vi., p. 209.

*Le Cephallepis de Loddiges*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 192.

*Habitat*.—South Brazil.

*Male*. Head and crest metallic prussian-blue, the long feathers of crest black. Upperside bronze-green. White spot behind the eye. Median rectrices bronze-green, lateral bronze-green at base, then black with large white tips. Chin and sides of the neck brownish-gray. Flanks and undertail-coverts brownish-grey washed with green. Rest of underside dark shining blue. Wings dark brown. Feet flesh color. Bill black.

Total length,  $3\frac{5}{8}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronze-green. Underside gray. Rest like male.

This rare species was dedicated by Gould to Mr. George Loddiges, the celebrated botanist, who made, during his lifetime, one of the best collections of humming birds of that epoch.

One of my specimens I found in the collection of Costa de Beauregard, another was collected by H. von Hering, at Taquara do Mundo novo, Prov., Rio Grande, Brazil.

GENUS XXII. **Loddigesia**, Gould, Mon. Troch., vol. iii.

*Loddigiornis*, Bon. Compt. Rend., 1850, p. 381.

*Mulsantia*, Reich. Aufz der Colib, 1853, p. 12.

*Thaumantoëssa*, Hein. Journ. fur Ornith., 1863. p. 209.

TYPE: *T. mirabilis*, Bourcier.

Bill straight, longer than the head. Wings diminutive, primaries rounded at the tip, tail feathers on each side very much prolonged and terminating in a large spatula, median and lateral rectrices excessively short, the two posterior undertail-coverts very long and pointed.

*Habitat*.—Peru.

69\*. *LODDIGESIA MIRABILIS*, Bourcier, P.Z.S., 1847, p. 42.

*Mulsantia mirabilis*, Bon. Consp. Gen. Av., 1850, vol. i., p. 80.

*Thaumatoëssa mirabilis*, Heine. Journ. für Ornith., 1863, p. 210.

*Loddigesia mirabilis*, Tacz., P.Z.S., 1881, p. 827.

*Marvellous Humming Bird*, Gould, Mon. Troch., vol. iii., p. 161.

*La Loddigésie admirable*, Muls. Hist. Nat. Ois. Mou., 1877, t. iii., p. 252.

*Habitat.*—Chachapoyas, Peru.

*Male.*—Crown of the head brilliant blue, neck scapularies, back wing and tail-coverts golden-green; on the throat a gorget of very brilliant green tinged with blue in the centre, and bounded on each side by a narrow band of coppery red; sides of the breast and abdomen white; flanks golden-green. Median and lateral rectrices very short, dark green; outermost ones very long about three times the length of the body, very narrow until near the end where they terminate suddenly with a broad spatule of a dark blue colour crossed with darker lines, very distinct in certain lights. The spatules are as broad as long, wider in the middle and curved in half a circle, in nearly all their length, so that in their natural position they cross twice one another. Undertail-coverts green margined with white. They are in general long, but the two posteriors are very long, more so than the body, and pointed. These are dark bronzy-green on their basal half passing to dark blue with tips whitish; bill and feet black.

Total length, 147 mill. Wing, 40. Tail, 125. Culmen, 21. Posterior undertail-coverts, 80. Width of spatule, 30.

*Female.*—Upperside less golden than the male. Head grayish-bronze. Underside white washed with dove color, throat spotted with green, flanks and abdomen golden-green. Median rectrices brilliant green, lateral green at base passing to bluish-black at tips; outermost grayish passing to blue on spatula, which is oblong. Undertail-coverts dove colour, the posterior ones reach three-fourths of the outermost rectrices, and are pure white.

This most remarkable species was discovered in 1833, at Chachapoyas (Peru), by Mr Matthews, who sent it to Mr Loddiges, in which collection it is still. It is the type of the species.

For many years it remained unique, and Gould did his utmost to procure another specimen; but he failed and died in 1881, before he could secure the species.

Shortly after his death, MM<sup>rs</sup> Jelski et Stolzmann, who were collecting objects of natural history for the Museum of Warsaw, had the good fortune to rediscover the species and to secure about fifteen specimens of both sexes, which they sent to Europe. The British Museum possesses three specimens, two adults, male and female, and one young, which I believe were collected by the last mentioned naturalists.

It is still a very rare species, and one of my desiderata.

LODDIGESIA, sp. Boucard Troch. du Mex. (Ann. Soc. Linn., Lyon, 1873).

*Habitat.* — San-Andres Tuxtla.

In August 1856, when residing in San-Andres Tuxtla Mexico, I saw a bird probably belonging to this extraordinary genus. It was near sunset, and unfortunately I had no gun at the time. I came at the same place several times on purpose to obtain that bird; but I was never able to see it again.

I call the attention of the mexican Naturalists on the importance of the discovery of that bird, and I ask as a favour that if discovered one day or another, that the species should be called after me.

GENUS XXIII. — **Klais**, Reich. Aufz. der Col., 1853, p. 13.

BASILINNA, Cab and Hein. Mus. Hein. 1860, t. III, p. 44.

GUIMETIA, Bon. Ann. Sc. Nat., 1854, p. 137.

TYPE : *T. guimeti*, Bourcier.

Bill straight, little longer than the head, wide at base, graduating to a point. Feathers of forehead projecting on the culmen. Throat and crown brilliantly coloured. Wings long. Tarsi clothed. Size minute. Sexes unlike.

*Habitat.* — Guatemala Costa-Rica, Veragua, Panama, Venezuela and Columbia.

70. KLAIS GUIMETI, Bourc and Muls. Ann. Soc. d'Agric., Lyon, 1843, p. 88.

*Hylocharis guimeti*, Gray. Gen. Birds, vol. I, p. 114.

*Myabeillea guimeti*, Bon. Rev. and Mag. Zool., 1854, p. 253.

*Basilinna guimeti*, Cab and Hein. Mus. Hein, 1860, t. III, p. 44.



*Klais guimeti*, Sclat et Salv. Nomenclator, 1873, p. 88.

*Guimet's Flutterer*, Gould. Mon. Troch., vol. IV, p. 210.

*Le Klais de Guimet*, Muls. Hist. Nat. Ois. mou., 1876, vol. III, p. 139.

*Habitat*. — Columbia.

*Male*. — Crown and throat metallic purplish blue. Upperside bronzy-green. Underside shining dark green washed with dark gray, slightly golden on flanks. Undertail-coverts pale bronze edged with gray. Median rectrices bronze-green, lateral bronze-green at base, then blackish, with brown tips, outermost ones tipped gray. Wings purplish-brown. A white spot behind the eye. Bill black.

Total length, 3 in. : Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*. Upperside bronzy-green. Underside gray. Same size as male.

This uncommon species was dedicated by MM. Bourcier and Mulsant to M<sup>r</sup> Jean-Baptiste Guimet, of Lyon, the inventor of the colour, well known as *Blue Guimet*.

71. KLAIS MERRITTI, Lawr. Ann. N.-Y. Lyc. Nat. Hist., 1860, vol. III, p. 110.

*Mellisuga merritti*, Lawr. " " " " " "

*Merrit's Flutterer*, Gould. Mon. Troch. Suppl. 1886.

*Le Klais de Merritt*.

*Habitat*. — Guatemala, Costa-Rica, Veragua, and Panama.

*Male*. — The principal differences between this species and the preceding consists in the color of the throat and crown which is metallic blue without any purple in it; it is lighter on the crown and brilliantly metallic. The general colour of the underside is of a much lighter gray.

Total length,  $3\frac{3}{8}$  in. : Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*. — Centre of crown metallic greenish-blue. Upperside shining golden-green. Underside pale gray. Median rectrices bronze-green; lateral bronze-green at base, then bluish-black with white tips. Wings dark brown. Bill black.

Same size as male.

This description is taken from a female killed by me at Navarro (Costa-Rica), in May 1877.

It is a rare species. My specimens are from *Guatemala*, Costa-Rica, Veragua and Panama.

GENUS XXIV. **Anthocephala**, Cab. Mus. Hein, 1860, t. III, p. 72.

TYPE : *T. floriceps*, Gould.

Bill straight, pointed, long as the head. Wings long, pointed. Tail rounded.

*Habitat*. — Columbia.

72. ANTHOCEPHALA FLORICEPS, Gould. P. Z. S., 1853, p. 62.

*Metallura floriceps*, Reich. Aufz. der Col., 1853, p. 8.

*Adelomyia floriceps*, Gould. Mon. Troch., vol. III, p. 202.

*Blossom Crown*, Gould. Mon. Troch., vol. III, p. 202.

*L'Antocephale à tête rose*, Muls. Hist. Nat. Ois. Mou., 1876, t. III, p. 126.

*Habitat*. — Columbia.

*Male*. — Forehead buffy-white, passing to a beautiful deep peach-blossom hue on the crown. Throat gray, passing into the rufous of the abdomen; Wings purplish-brown. Middle tail feathers bronzy, lateral bronzy at the base passing into purplish-black and largely tipped with buff. Bill black; feet apparently light brown. « Gould. Mon. Troch. »

This extremely rare species was probably discovered in Columbia, by Linden.

GENUS XXV. **Microchera**, Gould. Int. Troch., 1861, p. 82.

TYPE : *M. albocoronata*, Gould.

Size minute. Bill long as the head, slender, straight. Crown snow white. Feathers of forehead projecting on the culmen. Nostrils covered. Wings long, primaries rather broad. Tail short, square. Tarsi clothed. Sexes unlike.

*Habitat*. — Costa-Rica, Nicaragua, Veragua.

73. MICROCHERA ALBOCORONATA, Lawr. Ann. N.-Y. Lyc. Nat. Hist., 1853, vol. VI, p. 137.

*Snow Cap*, Gould. Mon. Troch., vol. II, p. 116.

*La Microchère à couronne blanche*, Muls. Hist. Nat. Ois. Mou., 1876, vol. III, p. 135.

*Habitat*. — Veragua (Columbia).

*Male*. — Crown silky snow-white. Neck purple-black. Rest of upperside dark shining purple with black reflections. Throat greenish-black. Breast and flanks dark purplish-black. Abdomen black. Undertail coverts white. Median rectrices dark-bronze; lateral white at base, then bluish-black with a narrow white band at tips. Wings purple. Maxilla black. Mandible brownish.

Total length,  $2\frac{3}{8}$  in.: Wings,  $1\frac{5}{8}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female*. — Upperside bronzy-green. Underside white. Same size as male.

This beautiful species is very rare. I have only one male specimen collected by Arce, in Veragua. It was discovered by Doctor J.-K. Meritt.

74. MICROCHERA PARVIROSTRIS, Lawr. Ann. N.-Y. Lyc. Nat. Hist., 1870, p. 122.

*Purple Snow Cap*, Gould. Mon. Troch. Suppl., p. 40.



La *Microchère à petit bec*, Muls. Hist. Nat. Ois. Mou., 1876, vol. III, p. 137.

*Habitat.* — Costa-Rica, Nicaragua.

*Male.* — Crown silky snow-white. Upperside shining reddish-purple. Throat, breast, abdomen and flanks, dark reddish-purple, slightly greenish on chin. Undertail-coverts white. Median rectrices light bronze, blackish at tips; lateral white at base, rest brownish black edged with white. Wings purple. Bill black.

Total length,  $2\frac{1}{2}$  in.: Wings,  $1\frac{5}{8}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female.* — Upperside bronzy-green. Underside white. Middle rectrices bronze-green, rest white with a subterminal black bar. Bill black.

It is a very rare species. I have only two specimens, one collected by M<sup>r</sup> Belt at Chontales (Nicaragua), and the other collected by M<sup>r</sup> Zeledon at Limon (Costa-Rica).

GENUS XXVI. **Bellona**, Muls and Verr. Class. Troch., 1865, p. 75.

TYPE : *T. cristatus*, Linné.

Bill straight about as long as the head. Feathers of the forehead covering one half the length of culmen. Nostrils hidden. Head covered with a broad pointed crest. Underside dull. Wings long. Tail short and rounded. Feet small. Tarsi naked. Sexes unlike.

*Habitat.* — West Indies.

75. **BELLONA CRISTATA**, Linné. Syst. Nat., 1766, vol. I, p. 192.

*Trochilus puniceus*, Gmel. Syst. Nat., 1788, t. I, p. 497.

*Mellisuga cristata*, Gray. Gen. Birds., vol. I, p. 113.

L'Oiseau mouche huppé, Less. Ois. Mou., 1829, p. 113.

*Ornismya cristata*, Less. Troch., 1831, p. 20.

*Orthorhynchus cristatus*, Bon. Consp. Gen. Av., 1850, p. 83.

*Orthorhynchus ornatus*, Gould. Mon. Troch., vol. IV, p. 206.

*Blue Crest*, Gould. Mon. Troch., vol. IV, p. 206.

La *Bellone à huppe bleue*, Muls. Hist. Nat. Ois. Mou., 1876, t. III, p. 194.

*Habitat.* — Saint-Vincent, Barbadoes, Martinique, Grenada.

*Male.* — Forehead and crown metallic golden-green changing into deep purplish blue on the lengthened crest feathers, which in some specimens are amply furnished and extend to the middle of back. Upperside dark green, nearly black on sides and back of crest. Tail purplish-black with a greenish tinge on

webs of median rectrices. Throat smoky-brown. Underside smoky black. Wings purplish-brown. Bill black.

Total length,  $3\frac{2}{8}$  in.: Wings,  $1\frac{7}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside dark bronzy-green. Underside white, grayish on sides of breast and flanks. Median rectrices bronzy-green; lateral bronze at base on external web, then bluish black with white tips, outermost ones grey at base on external web, then bluish black, with large white tips. Wings purplish-black. Bill black. Same size as male.

This species is abundant in the West Indies and I believe that the *Bellona ornata* of Gould is only a variation of plumage with more blue on the crest.

I have received a fine series of both sexes of this species from Grenada, collected by Mr Wells. Some have more or less blue on the back part of crest; but in all the specimens it is the same purplish-blue.

76. — *BELLONA SUPERBA*. Boucard. H. Bird, vol. I, p. 43.

*Blue and green Crest.*

*La Bellone superbe.*

*Habitat*. — Saint-Vincent?

*Male*.—Forehead and crest metallic golden-green; the few elongated feathers of crest which are forming a point, metallic blue without any purple in it. Upperside dark bronzy-green, not so dark as the preceding species, but just a little black under the green of the crest. Tail purplish-black. Throat smoky brown, remainder black.

Total length,  $3\frac{1}{2}$  in.: Wing,  $1\frac{3}{4}$ . Tail, 1. Culmen  $\frac{1}{2}$ .

*Female*. — Unknown, but probably like the preceding species. What I described in the Humming Bird was probably a young male. The description runs as follows:

Forehead dark-green. Upperside dark golden-green appearing black on neck. Chin gray, remainder dark gray, nearly black. Wings purplish-brown. Tail purplish-black, with gray tips on outermost feathers in some of my specimens.

Bill and feet black.

This species makes the passage between *B. cristata* and *B. exilis*; but is more closely allied to the latter species.

77 : *BELLONA EXILIS*, Gmel. Syst. Nat. 1788, p. 484.

*Trochilus cristatellus*, Lath. Ornith. Suppl. 1790. p. 39.

*Mellisuga exilis*, Gray. Gen. Birds, vol. I, p. 113.

*Orthorhynchus chlorotophus*, Bon. Consp. Gen. Av. 1850, vol. I, p. 83.

*Gilt Crest*, Gould. Mon. Troch., vol. IV, p. 207.

*La Bellone à huppe verte*, Muls. Hist. Nat. Ois. Mou. 1876, t. III, p. 196.

*Habitat.* — Dominica, Sainte-Croix, Montserrat, Nevis and Martinica.

*Male.* — Forehead and crown mettalic golden-green turning into grass-green on elongated feathers of crest. Upperside bronze-green darker on neck. Throat dark gray; remainder of underside dark brown with bronzy-green feathers on sides of breast and flanks. Median rectrices dark bronze-green, rest dark bluish-purple. Wings purple-brown. Bill and feet black.

Total length,  $2\frac{3}{8}$  in.: Wings, 2, Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female.* — Upperside bronzy-green. Underside smoky gray, lighter on throat, centre of breast, and abdomen. Median rectrices bronzy-green, lateral purplish, outermost with gray tips. Bill and feet black. Same size as male.

One of the specimens which I have in my collection, formerly in Riocour Collection, has on its label *O. chlorotophus*, Vieillot.

I think that many more species of this charming genus will be found when all the West Indies islands will be more thoroughly explored than what they have been up to the present time.

78. BELLONA EMIGRANS, Lawr. Ann. N.-Y. Lyc. Nat. Hist., vol. I, p. 50.

*Blue and violet Crest.*

*La Bellone à huppe violette et bleue.*

*Habitat.* — Venezuela? Grenada.

*Male.* — The basal half of the crest is of a shining emerald-green; the terminal half deep reddish-violet; the upper plumage is dark grass-green. Tail feathers blackish-purple; the two central ones washed with green; quills light purple. Throat smoky-gray; breast and abdomen smoky-black. Bill and feet black.

Total length,  $3\frac{1}{4}$  in.: Wings,  $1\frac{7}{8}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{7}{16}$ .

*Female.* — Without the brilliant crest. Underside whitish-gray. « Lawr, loc. cit. »

This species is closely allied to *O. cristatus* from Barbadoes; the two colors of the crest are equally divided in both, but they differ in shades of coloring; the green in this species is without the strong golden tinge existing in the other and the violet is rather deeper in color, which color it retains in all positions whereas in some lights that of *O. cristatus* is greenish, the upper plumage of *O. cristatus* is lighter and golden green. It is also smaller with a longer bill. They differ strongly in the ends of the tail feathers, these being obtusely pointed in the new species and rounded in the other. I have some specimens exactly like this description from Grenada.

GENUS XXVII. **Abeillia**, Bon. Consp. Gen. Av., 1850, p. 79.

*Baucis*, Reich, Aufz. der Col., 1853, p. 13.

*Myiabeillia*, Bon., Rev. and Mag. Zool., 1854, p. 253.

TYPE: *O. Abeillei*, Delattre et Lesson.

Bill minute, straight, shorter than the head. Wings long, pointed, reaching the end of tail. Tail very slightly forked. Rectrices wide, and of even size, excepting the medians, which are slightly shorter. Size small. Sexes unlike.

*Habitat*.—Mexico and Central America.

79. ABEILLIA TYPICA, Bon., Consp. Gen. Av., 1850, vol. i., p. 79.

*Ornismya abeillei*, Less et Del., Rev. Zool., 1839, p. 16.

*Mellisuga abeillei*, Gray, Gen. Birds, vol. i., p. 112.

*Ramphomicron abeillei*, Bonaparte, Consp. Av., vol. i., p. 79.

*Basalimna abeillei*, Reich, Aufz. der Col., 1853, p. 13.

*Myabeillea typica*, Bon., Rev. et Mag. Zool., 1854, p. 253.

*Baucis abeillei*, Reich, Troch. Enum., 1855, p. 11.

*Abeillé's Flutterer*, Gould, Mon. Troch, vol. iv., p. 211.

*Le Baucis d'Abeillé*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 144.

*Habitat*.—Mexico, Guatemala.

*Male*.—Upperside shining green. Throat luminous emerald green. Breast black, washed with green on the sides. Abdomen, flanks, and undertail-coverts pale green, with a grayish appearance, in consequence of the grayish base of feathers. A tuft of white on each side of vent. Median rectrices shining green, lateral bluish-black on internal edges, green on external for two-thirds of their length, then bluish-black with gray tips. Wings purplish brown. Bill black.

Total length,  $3\frac{1}{8}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside bronzy-green. Underside ashy-gray, washed with some few green feathers on flanks. Tail like that of male with larger gray tips on lateral feathers. Slightly smaller in size.

This species was discovered by Delattre, near Jalapa, Mexico, and dedicated by him, to his friend, Doctor Abeillé.

Some of my specimens I collected in Mexico, others came from Coban, Alta Vera-Paz, Guatemala.

With *Patagona gigas*, they are the only two species without crest or crown.

GENUS XXVIII. **Chrysolampis**, Boié. Isis, 1831, p. 546.

TYPE: *T. moschitus*, Linné.

Bill straight, long as the head. Feathers of the forehead projecting on the culmen and hindling the nostrils. Wings long nearly reaching the end of tail. Tail rounded. Rectrices of even size. Feet small. Tarsi bare. Head, throat and upper part of breast brilliantly coloured. Sexes unlike.

*Habitat*.—Brazil, Trinidad, Venezuela, Columbia and Guiana.

80. CHRYSOLAMPIS MOSCHITUS, L. Syst. Nat., 1766, vol. i., p. 192.

*Trochilus carbunculus*, Gmel. Syst. Nat., 1788, t. i., p. 498.

*Ornismya moschitus*, Less, Ois. Mou., 1829, p. 166.

*Mellisuga moschita*, Steph. Shaw. Gen. Zool., vol. xiv., p. 253.

*Chrysolampis giglioli*, Oustalet., le Naturaliste, 1885, p. 3.

*Chrysolampis infumatus*, Berl.

*Chrysolampis moschitus* Var., Boucard. H. Bird. vol. i., p. 26.

*Ruby and Topaz*, Gould, Mon. Troch., vol. iv., p. 204.

*Le Chysolampe Rubis-Topaze*, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 255.

*Habitat*.—Brazil, Trinidad, Venezuela, Guiana and Columbia.

*Male*.—Head metallic ruby-red. Upperside bronzy-brown, appearing black on sides of neck and upper part of back. Chin, throat and upper part of breast metallic topaz. Abdomen and flanks dark brown, nearly black round the breast. A line of white feathers on sides of flanks, and a tuft of white feathers on each side under the vent. Undertail-coverts rufous. Tail rufous with brownish-black tips. Bill and feet black.

Total length,  $3\frac{3}{4}$  in. Wings,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden green. Underside grayish-white, washed with golden feathers on sides of breast and flanks.

Median rectrices bronzy-green, lateral gray at base, then purplish-brown with white tips. Bill and feet black.

This species is very abundant in Brazil, Trinidad, Guiana, and Columbia.

*Chrysolampis giglioli*, Oustalet, was a made up bird fabricated in Colombia with half a specimen of *C. moschitus*, and the other half of *Florisuga mellivora*.

*Chrysolampis infumatus*, Berlepsch, can only be a dark coloured bird of *C. moschitus*, and I don't think it can stand as a species.

GENUS XXIX. **Eustephanus**, Reich. Syst. Av. Nat., 1849, pl. 40.

*Sephanoides*, Less, Int. Gen. et Syn. Gen. Av., 1832, p. 29.

*Sephanoides*, Bon. Consp. Gen. Av., 1850, p. 82.

*Thaumaste*, Reich, Aufz. der Colib., 1853, p. 14.

*Stokosiella*, Reich, Bon. Ann. Sc. nat., 1854, p. 38.

TYPE: *T. galeritus*, Molina.

Bill short, straight, rather stout, subcylindrical, pointed, shorter than the head. Nostrils covered with feathers. Wings long, nearly reaching the end of tail. Median rectrices shortest, remainder very slightly and gradually longer. Tarsi clothed. Sexes unlike.

*Habitat*.—Chili and Islands of Juan Fernandez.

81. EUSTEPHANUS GALERITUS, Mol. Hist. Chili, p. 219.

*Colibri du Chili*, Aud and Vieill, Ois. Dor., t. i., p. 125.

*Mellisuga kingi*, Vig. Zool. Journ., vol. iii., p. 432.

*Mellisuga galerita*, Gray, Gen. Birds, vol. i., p. 113.

*Orthorhynchus sephanoides*, Less and Garn. Voy. Coquille, pl. 31.

*Ornysmia sephanoides*, d'Orb. and Lafr. Syn. Av., t. ii., p. 29.

*Trochilus ferficatus*, Gould, Voy. Beagle. 1841, pl. iii., p. 110.

*Sephanoides kingi*, Gray, List Gen. Birds, p. 19.

*Chilian Fire Crown*, Gould, Mon. Troch., vol. iv., p. 265.

*Eustephane coiffé*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 247.

*Habitat*.—Chili and Islands of Juan Fernandez.



*Male*.—Head metallic fiery-red. Upperside dark bronzy-green, appearing black on neck in certain lights. Tail bronze-green. Throat white, spotted with green. Tuft on thighs white. Undertail-coverts pale bronze-green edged with buffy-white. Wings purplish. Bill black.

Total length,  $4\frac{3}{8}$  in. Wings,  $2\frac{1}{2}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronze-green, passing to shining green on uppertail-coverts. Four median rectrices bronze-green, the two next with subterminal blackish bar and gray tips, outermost bronze-green at base passing to blackish on internal web, and gray on external web, tips gray. Underside like the male.

Total length,  $4\frac{1}{4}$  in. Wings,  $2\frac{1}{2}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{1}{2}$ .

I have also a young male of this species with metallic silvery-green feathers on top of head.

My specimens of this species were collected near Valparaiso by Mr. Reed.

82. EUSTEPHANUS BURTONI, Boucard, H. Bird, 1891, vol. i., p. 18.

*Burton's Golden Crown.*

*l'Eustephane de Burton.*

*Habitat*.—Chili.

*Male*.—Closely allied to the preceding species from which it differs by the brilliant golden crown of the head, and the dark shining green of the upperside, with bluish reflections.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Unknown.

Type unique in my collection.

83. EUSTEPHANUS FERNANDENSIS, King, Proceed, Com. and Corr., Zool. Soc., pt. i., p. 30.

*Ornismya cinnamomea*, Gerv. Mag. Zool., 1835, p. 43.

*Ornismya robinson*, Delatt & Less, Rev. Zool., 1839, p. 18.

*Trochilus stokesi*, King, Proceed. Com. and Corr. Zool. Soc., pt. i., p. 30.

*Mellisuga fernandensis*, Gray, Gen. Birds, vol i., p. 113.

*Mellisuga stokesi*, Gray, Gen. Birds, vol. i., p. 113.



*Sephanoides fernandensis*, Bon. Consp. Gen. Av., 1850, vol. i., p. 82.

*Thaumaste stokesii*, Reich, Aufz. der Colib, 1853, p. 14.

*Eustephanes stokesii*, Cab and Heine, Mus. Hein, 1860, t. iii., p. 75.

*Stoke's Humming Bird*, Gould, Mon. Troch, vol. iv., p. 266.

*Cinnamon Fire Crown*, Gould, Mon. Troch, vol. iv., p. 267.

*l'Eustephane de Robinson*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 249.

*Habitat*.—Island of Juan Fernandez.

*Male*.—Top of head metallic fiery-red. Upper and under-side including the tail, dark cinnamon-red. Vent buff. Wings purple. Bill black.

Total length,  $5\frac{1}{8}$  in. Wing,  $3\frac{1}{4}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Top of head metallic bluish-green. Upperside and wing-coverts shining bronze-green passing to green, with bluish reflections on rump and uppertail-coverts, feathers of rump edged with white. Median rectrices and outer webs of lateral dark bronze-green with bluish reflections, inner webs white, outermost nearly all white, excepting a narrow margin and tip on outer web, bronze-green. Underside white, spotted profusely on throat with shining green, and sparingly on sides of breast, and flanks with minute greenish spots. Wings purplish. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{4}$ . Tail, 2. Culmen,  $\frac{5}{8}$ .

This fine species was discovered in the island of Juan Fernandez, by Captain King, who collected the two sexes. For many years they were considered as two species, and the female described by Capt. King under the name of *Trochilus stokesi*.

Mr. Bridges is the first one who mentioned to Parzudaki that they were only sexes of one same species. This has been confirmed afterwards by Mr. Landbeck, sub-Director of the Museum of Santiago, and lately Mr. Reed, who collected and dissected a fine series of this species on the Island of Juan Fernandez, confirmed what was already accepted by all the leading Ornithologists.

My specimens were collected by Mr. Reed.

84\* EUSTEPHANUS LEYBOLDI, Gould, Ann. Mag. Nat. Hist., 1870, p. 406.

*Leybold's Cinnamon Fire Crown*, Gould.

*l'Eustéphane de Leybold*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 252.

*Habitat*.—Island of Mas-à-fuera.

*Male*.—Exactly like the preceding species, with the exception that the metallic fiery-red of the crown extends over the occiput.

Total length,  $5\frac{1}{4}$  in. Wing,  $3\frac{3}{16}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Similar to the female of *E. fernandensis*, but differs chiefly in the tail feathers which have the basal portion of the inner webs and all the outer webs green, having only the apical part of the inner ones white. The spots on the throat are bronzy and disposed in lines, and not generally dispersed, as in the female of *E. fernandensis*. "Elliot's, Syn. H. Birds, p. 94."

I am in doubt about the validity of this species, which is one of my desiderata.

GENUS XXX. **Patagona**, Gray, List. Gen. Birds, 1840, p. 18.

*Cynanthus*, Less, Tabl. Esp. Ois. Mou., 1829, p. 12.

*Hylocharis*, Gray, Gen. Birds, 1848, Vol. 1, p. 114.

*Hypermetra*, Cab and Hein, Mus. Hein., 1860, t. iii, p. 80.

TYPE: *T. gigas*, Vieillot.

Size very large. Bill stout, straight, longer than the head. Feathers of the forehead projecting slightly upon the culmen, hiding the nostrils. Wings very long, reaching nearly the end of tail. Tail long, forked, median rectrices broad, long, and shortest, lateral and outermost ones slightly and gradually longer. Feet large and stout, tarsi clothed to the toes. Sexes alike.

*Habitat*.—Ecuador, Peru, Bolivia, and Chili.

85. PATAGONA GIGAS, Vieill, Gal. Ois., 1834, t. i., p. 296.

*Cynanthus tristis*, Less, Ois. Mou., 1829, p. 43.

*Ornismya gigantea*, d'Orb and Lafr. Syn. Av., 1838, p. 26.

*Hylocharis gigas*, Gray, Gen. Birds, vol. 1, p. 114.

*Hypermetra gigas*, Cab. and Hein., Mus. Hein., 1860, t. iii, p. 80.

*Giant Humming Bird*, Gould, Mon. Troch., vol. iv, p. 232.

*le Patagon géant*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii, p. 195.

*Habitat*.—Ecuador, Peru, Bolivia, and Chili.

*Male*.—Upperside pale greenish-bronze, greener on head. Patch of white on rump. Uppertail coverts greenish-bronze, margined with white. Tail brownish bronzy-green. Shafts of outermost and two lateral next to it white, except at tips. Outermost rectrice grayish-white with tips brownish-green. A buff spot behind the eye. Throat and abdomen rusty red, the feathers of the former with a blackish-brown spot in the centre of each feather. Breast and flanks pale brown, margined with rufous. Vent, tuft on side of flanks, and undertail coverts white. Wings purplish-brown. Bill black.

Total length,  $8\frac{1}{2}$  in. Wing,  $5\frac{1}{4}$ . Tail,  $3\frac{3}{4}$ . Culmen,  $1\frac{1}{4}$ .

*Female*.—Coloured like the male, but paler on underside, and smaller.

Total length,  $7\frac{1}{2}$  in. Wing, 5. Tail,  $3\frac{5}{8}$ . Culmen,  $1\frac{1}{4}$ .

I have in my collection what I consider as the type of Vieillot "Ex Coll Riocour." My other specimens were collected in Chili by Reed. I have also three specimens collected by Whitely in Peru, and in Bolivia by Buckley. They are different in their coloration.

The specimens from Peru have the upper part of the throat black, margined with buff, and the lower part rusty red, all the underside slaty-gray, with the abdomen buffy-white.

The specimen from Bolivia has the upperside more bronzy with a rufous tinge on neck, the patch on rump buffy-white, all the underside deep buff, and the wings shining purple with bluish reflections, each feather, excepting the two longest tipped white.

If they should prove distinct species, I propose the names of *Patagona peruviana* and *Patagona boliviana* for them.

1893

I have put this genus here considering that it is more nearly related to *Eustephanus* than to any other genus.

## FAMILY IV. METALLURIDAE,

OR FAMILY OF THORN-BILLS.

Body moderate or large. Bill straight and slender, moderate or very small as in the genera, *Oxygogon* and *Ramphomicron*. Feathers projecting on the culmen, especially so in *Oxygogon* and *Ramphomicron*. Throat brilliantly coloured in the males, excepting in the genus *Avocettinus*. In the genera *Chalcostigma*, *Eupogonus*, and *Oxygogon* the brilliant feathers of the throat are more or less elongated, reaching about the middle of the breast. In the two last genera the forehead is also ornamented with long feathers forming a crest. Rectrices of tail broad, slightly or greatly forked, as in the genus *Ramphomicron*, and generally brilliantly coloured. Sexes unlike.

TYPE: *Metallura*, Gould, P.Z.S., 1847, p. 94.

GENUS XXXI. **Oreonympha**, Gould, P.Z.S., 1869, p. 295.

TYPE: *O. nobilis*, Gould.

Bill longer than the head, stout, and with a somewhat downward curvature. Wings large and sickle-shaped. Tail ample and forked. Tarsi clothed nearly to the toes, which are of moderate size, the hinder toe and nail rather shorter than the middle toe and nail "Gould, l.c."

*Habitat*.—Peru.

86. OREONLYMPHA NOBILIS, Gould, P.Z.S., 1869, p. 295.

*Bearded Mountaineer*, Gould, Mon. Troch, Suppl. 1886, p. 60.

*L'Oréonymphe noble*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii, p. 175.

*Habitat*.—Peru.

*Male*.—Forehead and centre of crown black, remaining portion of top of head dark blue. Cheeks and sides of throat black. Throat metallic green succeeded by a tuft of lengthened metallic reddish-purple feathers. Upper surface bronzy-brown. Sides of neck and under surface grayish-white, mottled faintly with brown on the abdomen and flanks. Undertail-coverts bronzy-brown. Central rectrices bronze, lateral feathers white at base, rest bronze; the external one all white, excepting a streak of bronze at the tip of the inner web. Bill and feet black.

Total length, 7in. Wings,  $3\frac{1}{2}$ . Tail,  $3\frac{1}{2}$ . Culmen, 1.

"Description given by Mr. Elliot, from a very fine male collected at Huatocto (Peru), by H. Whitely."

FEMALE? Centre of crown deep chestnut, rest greenish blue. Sides of face and throat black. Centre of throat metallic green, no pendent tuft. Underpart brownish white. Rest of plumage like that of male.

This magnificent species was discovered by Mr. Henry Whitely during his scientific expedition in Peru.

GENUS XXXII. **Oxypogon**, Gould, P.Z.S. 1848, p. 14.

TYPE: *O. guerini*, Boissoneau.

Head crested. Bill short, straight, and pointed, shorter than the head. Face above and below the bill, ornamented with lengthened feathers. Wings long, reaching nearly the end of tail. Tail long, slightly forked when opened. Median rectrices broad, shorter than the next one and rounded, lateral gradually longer, the two outermost ones of the same length. Feet large. Tarsi naked. Hind toe and nail longer than middle toe and nail.

*Habitat*.—Venezuela and Columbia.

87. OXYPOGON GUERINI, Boiss., Rev. Zool., 1840, p. 7.

*Trochilus parvirostris*, Fras., P.Z.S., 1849, p. 18.

*Mellisuga guerini*, Gray, Gen. Birds, vol. i., p. 112.

*Guerin's Helmet-crest*, Gould, Mon. Troch., vol. iii, p. 182.

*l'Oxypogon de Guérin*, Muls., Hist. Nat., Ois. Mou., 1876, t. iii., p. 179.

*Habitat*.—Columbia.

*Male*.—Head and crest brownish-black with a central tuft of buffy-white feathers, the two longest nearly reaching the middle of the back. A wide band of buffy-white surrounds the back of the throat and head. Rest of upperside and wing-coverts bronzy-green, median rectrices bronzy-green, with white shafts very apparent. This white shaft is conspicuous over all the rectrices, lateral white margined and tipped with coppery-bronze. Centre of throat metallic green encircled with a tuft of buffy-white feathers, the longest of which reach the centre of breast. Sides of breast, abdomen

and flanks pale brown, washed with bronze feathers. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $2\frac{3}{4}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside bronzy-green. Tail like that of male ; but rectrices narrower. Underside including undertail-coverts pale buff, nearly white, with dark bronzy feathers encircling the throat, the abdomen and flanks washed with bronze feathers. Bill black.

Total length,  $3\frac{3}{4}$  in. Wing, 2. Tail,  $2\frac{2}{3}$ . Culmen,  $\frac{3}{8}$ .

This species was probably discovered by Boissoneau and dedicated by him to Guérin de Méneville, the Editor of the "Revue Zoologique," afterwards called "Revue et Magasin de Zoologie," and the author of many other well-known scientific works.

88. OXYPOGON STUEBELI, Meg. Madar. Zeitschr ges Ornith., 1884, vol. i, p. 204.

*Stuebel's Helmet Crest*, Gould, Mon. Troch, Suppl., 1886, p. 59.

*l'Oxygogon de Stuebel*.

*Habitat*.—Volcano of Tolima, Columbia.

*Female*.—Upper surface bronzy-brown. Neck, sides of neck, entire under surface and undertail-coverts brownish cream-colour. Wings, especially towards their distal end, with a vivid purple tinge. The two middle tail feathers, as well as the upper tail-coverts more or less coppery-red, each one with a broad cream coloured shaft stripe which does not reach to the distal end, the latter being lighter. The outermost tail feather cream-coloured, except a coppery patch along the inner web, leaving the terminal spot free. This marking of the tail is the best specific character. Bill black, very slender and hardly larger than that of *Ramphomicron microrhynchus*.

Total length, 3 in. Wing,  $2\frac{1\frac{5}{16}}$ . Middle tail feathers, 1.65, the penultimate and longest, 1.9. "Mey, loc cit."

It was dedicated to Doctor Alphons Stüebel, of Dresden, said to be the first collector in that part of the globe.

This seems to me to be the female of *Oxygogon guerini*. "Edit."



89. OXYPOGON CYANOLAEMUS, Salv. and Godm., Ibis., 1880, p. 172.

*Blue-throated Helmet-crest*, Gould, Mon. Troch., Suppl., 1886, p. 58.

*l'Oxypogon à gorge bleue.*

*Habitat.*—Sierra Nevada, Santa Marta (Columbia).

*Male.*—This species is closely allied to *O. guerini*. The principal differences are the throat, including its elongated feathers, which are metallic purplish blue, with base of feathers of chin white, followed by a metallic rubi spot, and the outermost rectrices entirely white with bronzy tips. Bill and feet black.

Total length,  $4\frac{7}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female.*—Like the male, but without the crest and the ornamental feathers of throat.

It is a very rare species in the collections. It was discovered by the traveller-naturalist, Mr. Simons, in Sierra Nevada of Santa Marta (Columbia).

90. OXYPOGON LINDENI, Parz., Rev. Zool., 1845, p. 253.

*Mellisuga lindeni*, Gray, Gen. Birds, vol. i., p. 113.

*Linden's Helmet-crest*, Gould, Mon. Troch, vol. iii., p. 183.

*l'Oxypogon de Linden*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 182.

*Habitat.*—Venezuela.

*Male.*—Centre of forehead, head and crest velvety black, with two narrow lines of white feathers starting from the bill and uniting quickly with the elongated white feathers of crest. Upperside bronze-green. Chin white, with black spots on the central feathers, and a lengthened tuft of white feathers reaching the lower part of breast. The black part surrounding the chin is encircled by a band of white. All the underside pale bronzy-brown. Anal region and upper part of undertail coverts bluish-white, remainder of undertail coverts bronzy, edged with white. Median rectrices bronzy-green, lateral coppery-bronze. Shafts of rectrices white for nearly their entire length. Wings purplish-brown. Bill and feet black.

Total length,  $4\frac{6}{8}$  in. Wing, 3. Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female.*—Upperside bronzy-brown. Underside mottled with white and coppery brown. Flanks coppery brown with a green lustre.



It is still a rare species in the collections. It was discovered in 1842, in the Sierra Nevada of Merida (Venezuela), by Mr. Linden, to whom it was dedicated by Parzudaki.

GENUS XXXIII. **Eupogonus**, Muls and Verr., Class.

Troch., 1865, p. 73.

TYPE: *T. herrani*, Delattre and Bourcier.

Bill short, straight, slightly curved at tip. Nostrils hidden by the feathers on forehead. Wings long, not reaching the end of tail. Tail slightly forked. Median rectrices wide, shorter than the three next ones. Outermost ones shorter, but longer than the median, all of them, excepting the two median, largely tipped with white. Tarsi clothed. Sexes unlike.

*Habitat*.—Ecuador and Columbia.

91. EUPOGONUS HERRANI, Delattre and Bourc., Rev. Zool., 1846, p. 309.

*Calothorax herrani*, Bon. Consp., Gen. Av., 1852, vol. i., p. 85.

*Ramphomicron herrani*, Gould, Mon. Troch, vol. iii., p. 187.

*Chalcostigma herrani*, Reich, Aufz. der Col., 1853, p. 12.

*Lampropogon herrani*, Bon., Rev. and Mag. Zool., 1856, p. 253.

*Herran's Thorn-bill*, Gould, Mon. Troch, vol. iii., p. 187.

*Le Ramphomicron d'Herran*, Muls., His. Nat. Ois. Mou., 1876, t. iii., p. 173.

*Habitat*.—Ecuador and Columbia.

*Male*.—Forehead and centre of the crown chestnut-red, paler on the long feathers of the crown. Sides of chin, crown and ear-coverts dark bronzy-green, appearing black in certain lights. A small white spot behind the eye. Rest of upper-side shining bronzy-green, becoming red on lower part of back. Upper tail-coverts shining purplish-red. Median rectrices purplish-blue, with a reddish tinge at tips, lateral purplish-blue, largely tipped with white. Chin metallic green, beneath which are elongated feathers forming a narrow band extending to the middle of breast, metallic rubi. Rest of

underside dark bronzy-green, washed with gray-buff. Anal region white. Undertail-coverts bronzy in centre and margined with gray. Wings purplish-brown. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{1}{2}$ :

*Female*.—Forehead chestnut-red. Rest of upperside like the male. Underside like the male, excepting the throat, which is buffy-brown with greenish bronzy spots.

Total length,  $4\frac{2}{8}$  in. Wing, 2. Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{1}{2}$ .

This fine species was discovered, the male in Ecuador, by Mr. Bourcier, the female at Pasto, Columbia, by Delattre.

I have several specimens collected in Ecuador by Buckley.

It was dedicated to General Herran, who was then President of the Republic of Colombia.

GENUS XXXIV. **Lampropogon**, Bon. Rev. and Mag. Zool., 1854, p. 252.

EUPOGONUS, Muls. and Verr., Class. Troch., 1865, p. 73.

TYPE: *Lampropogon ruficeps*, Bonaparte.

Bill short, acutely pointed, nostrils hidden, Wings long, reaching the end of tail. Tail forked, median rectrices shortest, lateral and outermost ones gradually longer, all of them uniform in colouration. Tarsi clothed. Sexes unlike.

*Habitat*.—Bolivia.

92. LAMPROPOGON RUFICEPS, Gould, P.Z.S., 1846, p. 89.

*Mellisuga ruficeps*, Gray, Gen. Birds, 1844, vol. i., p. 112.

*Ramphomicron ruficeps*, Bon. Consp. Gen. Av., 1850, vol. i., p. 79.

*Lampropogon ruficeps*, Bon. Rev. and Mag. Zool., 1854, p. 252.

*Red-capped Thorn-bill*, Gould, Mon. Troch, vol. iii., p. 188.

*Le Ramphomicron à tête rousse*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 171.

*Habitat*.—Peru and Bolivia.

*Male*.—Forehead chestnut red. Upperside bronzy-green. Tail bronze. Centre of throat metallic green, terminating with some elongated feathers metallic golden. Sides of throat

dark brownish bronze. Breast, buff, with a bronzy tinge. Abdomen and flanks dark buffy-bronze washed with bronzy feathers. Undertail coverts pale buff. Bill black.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy-green. Underside pale buff, washed with greenish-bronzy feathers. Outermost rectrices tipped pale buff. Bill black.

Total length,  $3\frac{3}{8}$  in. Wing, 2. Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

I have several specimens of this rare species collected in Bolivia, 1876, by Buckley.

GENUS XXXV. **Chalcostigma**, Reich. Aufz der Col. 1853, p. 12.

LAMPROPOGON, Bon. Rev. and Mag. Zool. 1854, p. 252.

TYPE: *O. heteropogon*, Boissoneau.

Bill very small, straight, shorter than the head. Feathers of lower part of throat lengthened, and brilliantly coloured. Wings long, ample, not reaching the end of tail. Tail deeply forked when opened. Rectrices broad, median smaller than the rest, next one longer and gradually so, with the others, outermost ones the longest. Sexes unlike.

*Habitat*.—Columbia, Ecuador, Peru, and Bolivia.

CHALCOSTIGMA HETEROPOGON, Boiss. Rev. Zool., 1839, p. 355.

*Trochilus coruscus*, Fras. P.Z.S., 1840, p. 15.

*Mellisuga heteropogon*, Gray, Gen. Birds, vol. i., p. 112.

*Ramphomicron heteropogon*, Bon., Consp. Gen. Av., 1850, vol. i., p. 79.

*Lampropogon heteropogon*, Bon. Rev. and Mag. Zool., 1854, p. 252.

Columbian Thorn-bill, Gould, Mon. Troch., vol. iii., p. 184.

*Le Ramphomicron à queue bronzée*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 168.

*Habitat*.—Columbia.

*Male*.—Head shining green. Upperside greenish-bronze. Uppertail coverts reddish bronze. Tail shining bronze. Throat

metallic golden-green, followed by a long narrow tuft of metallic rose-lilac. Rest of underside buffy bronze-green. Undertail-coverts buff with bronze in the centre of feathers. Wings purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $2\frac{5}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronze, reddish on forehead, lower part of rump, and uppertail-coverts. Underside uniform grayish-bronze, with the lower part of abdomen and undertail-coverts buff. Tail bronze. Maxilla black. Mandible flesh colour at base, rest black.

Total length,  $3\frac{7}{8}$  in. Wing, 2. Tail, 2. Culmen,  $\frac{1}{2}$ .

This species was probably discovered by Mr. Boissoneau.

\*94. *CHALCOSTIGMA OLIVACEA*, Lawr., Ann. N.Y., Lyc., Nat. Hist., 1867, p. 44.

*Olivaceous Thorn-bill*, Gould., Mon. Troch., Suppl., 1886, p. 62.

*Le Ramphomicron d'un p le olivatre*, Muls., Hist. Nat., Ois. Mou., 1876, t. iii., p. 170.

*Habitat*.—Peru and Bolivia.

*Male*.—Upper surface and tail dull olive-green. Wings light purplish-brown. Chin and upper part of throat metallic green, ending in a bunch of elongated feathers, metallic crimson, terminating in violet-purple. Undersurface brownish olive. Vent grayish-white. Undertail-coverts olive-green, the feathers margined with pale rufous. Bill and feet black.

Total length,  $5\frac{1}{4}$  in. Wing,  $3\frac{3}{4}$ . Tail,  $2\frac{7}{8}$ . Culmen,  $\frac{7}{16}$ .

There does not seem to be any difference in the plumage of the sexes. "Elliot, loc. cit."

Surely the plumage of the female must be without any of the metallic feathers on the throat. "Editor."

95. *CHALCOSTIGMA STANLEYI*, Bourc and Muls., Ann. Soc. Agri., Lyon., 1850, p. 199.

*Ramphomicron stanleyi*, Gould, Mon. Troch., vol. iii., p. 185.

*Ramphomicron vulcani*, Gould, Jard., Cont. Ornith., 1852, p. 135.

*Lampropogon stanleyi*, Bon., Rev. and Mag. Zool., 1854, p. 253.

*Stanley's Thorn-bill*, Gould, Mon. Troch., vol. iii, p. 185.

*Southern Thorn-bill*, Gould, Mon. Troch., vol. iii, p. 186.

*Le Ramphomicron de Stanley*, Muls., Hist. Nat., Ois. Mou., 1876, t. iii, p. 165.

*Habitat*.—Ecuador, Peru.

*Male*.—Top of head dark greenish-bronze. Upperside violet-blue. Uppertail-coverts dark shining bronzy-bluish-green. Tail shining bluish-green. Centre of throat metallic green, followed by a narrow band of bright amethyst feathers. Sides of throat brownish black. Underside sooty brown with bronzy reflections. Undertail-coverts dark violet, margined with brownish gray. Wings brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{7}{16}$ .

*Female*.—Upperside pale violet-blue, with all the head and upperwing coverts pale bronze-green. Underside sooty brown with a greenish-bronze tinge. Tail shining bluish-green, but not so brilliant as in male. Outermost rectrices margined externally with grayish brown.

Total length, 4 in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{7}{16}$ .

GENUS XXXVI. **Metallura**, Gould, P.Z.S., 1867, p. 94.

UROLAMPRA, Cab. and Heine, Mus. Heine, 1860, t. iii., p. 68.

LAVANIA, Muls., Cat. Ois. Mou., 1875, p. 24.

LAVINIA, Muls., Hist. Nat. Ois. Mou., 1877, t. iii., p. 106.

TYPE: *T. opaca*, Lichtensten.

Bill straight, acutely pointed, rather short. Tail long, slightly forked, rectrices wide, brilliantly coloured. Wings long, reaching the end of tail. Feet large. Tarsi bare. Hind toe longer than middle toe. Sexes unlike.

*Habitat*.—Venezuela, Columbia, Ecuador, Peru and Bolivia.

96. METALLURA OPACA, Licht., Tsch. Consp., p. 38.

*Trochilus cupreicauda*, Gould, P.Z.S., 1846, p. 87.

*Mellisuga cupreicauda*, Gray, Gen. Birds, vol. i., p. 113.

*Aglæactis cupreicauda*, Bon. Rev. and Mag. Zool., 1854, p. 253.

*Coppery tail*, Gould, Mon. Troch, vol. iii., p. 191.

*La Metallure à queue cuivrée*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 111.

*Habitat*.—Peru and Bolivia.

*Male*.—Upperside purplish black, with metallic reflections in certain lights. Tail above shining-bronze with metallic reddish purple reflections, beneath fiery-red in certain lights. Throat spotted with a long narrow band, metallic green. All the rest of underside, purplish-black. Wings bronzy-brown. Bill black.

Total length, 5in. Wing, 3. Tail,  $2\frac{3}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Unknown.

\*97. METALLURA JELSKYI, Cab. Journ. fur Ornith., 1874, p. 99.

*Metallura cupreicauda*, Tacz. P.Z.S., 1874, p. 544.

*Jelsky's Copper Tail*, Gould, Mon. Troch. Suppl., 1886, p. 63.

*La Métallure de Jelsky*.

*Habitat*.—Peru.

*Male*.—Entire plumage black, of a dull silky texture, presenting under certain lights, when viewed from behind, a slight lustre of bluish or reddish-violet, according to the light. Tail-coverts brownish-black, glossed with bronzy or reddish-copper. Fore part of the throat ornamented with scaley feathers of a dark and brilliant emerald-green. Anal region downy and white. Undertail coverts bronzy, with a violet reflection and bordered with pale reddish. Wing-coverts dull coppery-bronze, taking under certain lights a lustre of reddish-violet, similar to that of the general plumage. Quills brown, glossed with bronzy-olive and violet in their terminal parts. Tail slightly emarginate, the tail feathers broad, the middle ones slightly rounded, the others rather pointed at the extremity, of a dark coppery-bronze, taking a lustre of more reddish or violet, according to the direction of the light, and changing to a fine brilliant greenish-blue; lower part of the tail coppery-red or violet, more brilliant than the upper surface. Bill straight, black; much longer than the head; a little less than half the body. Feet black, with the tarsus entirely bare.

*Female*.—Above dusky-black; brownish below, with the same violet lustre as the male. Forehead pale brownish-gray,



gradually passing into a darker shade on the hind neck. Feathers of the breast and abdomen narrowly fringed with buff, more distinctly in the middle of the belly. Tail-coverts dull bronze. Fore neck ornamented with scaly feathers of a blue colour, broadly edged with violet, the lustre less strongly developed than in the male. Tail not so long, somewhat truncated, similar in colour to the male, but less red and more coppery, with the greenish-blue less brilliant.

This rare species was discovered in Peru by Mr. Jelski, the celebrated Peruvian explorer, and it was dedicated to him by Mr. Cabanis.

By the description and Mulsant's plate, it looks as if it was *M. opaca*. "Edit."

\*98. *METALLURA CHLOROPOGON*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 68.

*White vented Copper Tail*, Gould, Mon. Troch, Suppl., 1886, p. 64.

*La Metallure à ventre blanc.*

*Habitat*.—?

*Mas*.—Purpureo-fuscescens nitore quodam metallico virescenti, vertice humeris uropygioque valde, imprimis antem macula gulari splendidissime virescente-fulgentibus; alis purpureo-fuscis, reatricibus latissimis pulchre purpureo-resplendentibus, crisso albido, tectricibus caudae inferioribus virescenti-nitentibus, margine lutescenti. "Cab. l.c."

By the description it looks as a very allied species to *M. opaca*, if it is not the same. "Edit."

\*99. *METALLURA EUPOGON*, Cab. Journ. fur Ornith, 1874, p. 97.

*Metallura hedwigae*, Tacz., P.Z.S., 1874, p. 544.

*Red throated Copper Tail*, Gould, Mon. Troch, Suppl., 1886, p. 64.

*La Métallure à gorge rouge.*

*Habitat*.—Peru.

*Male*.—General plumage bronzy-green. Line down the centre of the throat metallic fiery-red. Tuft of white feathers below the thighs. Wings purple-brown. Tail bronze with blue reflections, beneath luminous grass-green. Bill and feet black.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen,  $\frac{1}{2}$ .

" Elliot, loc. cit."

Female unknown.

This rare species was discovered by Mr. Jelsky.

100. METALLURA SMARAGDINICOLLIS, D'Orb. and Lafr.,  
Syn. Av., 1838, ii., p. 31.

*Mellisuga smaragdinicollis*, Gray, Gen. Birds, vol i., p. 112.

*Urolampira smaragdinicollis*, Cab. and Hein., Mus. Hein.,  
1860, t. iii., p. 68.

*Violet Tail*, Gould, Mon. Troch., vol. iii., p. 196.

*La Métallure à gorge d'émerande*, Muls., Hist., Nat. Ois.  
Mou., 1876, t. iii., p. 120.

*Habitat*.—Bolivia, Columbia?

*Male*.—Upperside shining dark bronzy-green. Tail purple bronze, with shining dark blue reflections in certain lights, beneath reddish purple. Throat luminous dark grass-green. Rest of underside bronzy-green washed with pale buff on breast and middle of abdomen. Undertail coverts brownish bronze edged with pale buff. Bill black.

Total length,  $3\frac{2}{8}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{2}{8}$ .

*Female*.—Upperside bronze-green. Underside buff, glossed with green on flanks. Throat and breast spotted with bronzy-green. Anal region white. Undertail coverts buff, with bronzy green in centre. The two outermost rectrices of tail tipped with gray.

This rare species was discovered by D'Orbigny. My specimens were collected in Bolivia by Buckley.

101. METALLURA PERUVIANA. Boucard, H. Bird., 1893,  
vol. iii., p. 6.

*Peruvian Violet Tail*.

*La Métallure Péruvienne*.

*Habitat*.—Peru.

*Male*.—Upperside bronzy-green. Median rectrices dark greenish bronze, with bluish purple reflections in certain lights, beneath shining bluish-purple, with reddish-purple reflections. Throat luminous grass-green. Sides of neck and breast

golden-green. Abdomen and flanks bronze-green. Anal region white. Undertail-coverts bronze-green, margined with pale buff. Wings purplish-brown. Bill black.

Total length,  $3\frac{7}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy-green. Tail like that of male with the two outermost rectrices tipped grayish-white. Underside pale buff, whiter on abdomen and flanks, minutely spotted with golden-green on throat and breast, and bronze-green on flanks and abdomen. Anal region white. Wings purplish-brown. Maxilla black. Mandible flesh colour at base, the rest black. Same size as male.

This new species was discovered in Peru, 1873, by Mr. H. Whitely. It is closely allied to *M. smaragdinicollis*, but is a much larger bird. Besides the size, the principal differences consist in the greenish colour of the tail above, and the more golden tinge of the underside.

Types in Boucard's Museum.

102. METALLURA TYRIANTHINA, Lodd., P.Z.S., 1832, p. 6.

*Ornismya allardi*, Bourc, Rev. Zool., 1839, p. 294.

*Ornismya paulinae*, Boiss, Rev. Zool., 1839, p. 354.

*Mellisuga tyrianthina*, Gray, Gen. Birds, vol. i, p. 112.

*Trochilus allardi*, Jard., Contr., Ornith., 1850, pp. 81-82.

*Urolampra tyrianthina*, Cab. and Hein., Mus. Hein., 1866, t. iii, p. 68.

*Tyrian Tail*, Gould, Mon. Troch., vol. iii, p. 195.

*La Métallure d'Allard*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii, p. 117.

*Habitat*.—Columbia, Venezuela.

*Male*.—Upperside bronzy-green in some specimens, in others golden-green. A small white spot behind the eye. Tail metallic purple-bronze, brighter above than beneath. Throat luminous grass-green. Underside bronzy-green in some specimens, golden-green in others. Buffy on breast. Undertail coverts, bronzy-green margined with buff.

Wings purplish-brown. Bill black.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside bronzy-green. Underside rufous marked with bronze feathers on sides of breast, abdomen and

flanks. Tail above bronzy-purple, beneath reddish-purple, outermost rectrices tipped with buffy-white.

It is a common species.

I have one male specimen, grayish-brown all over, darker on forehead and on tail, with the throat dark metallic blue. If it should prove a distinct species, I propose the name of *Metallura griseo-cyanea* for it. X

103. METALLURA QUITENSIS, Gould, Int. Troch., 1861, p. 112.

*Quito Tyrian Tail.*

*La Métallure de Quito*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 116.

*Habitat*.—Ecuador.

I am not of the same opinion as Mr. Elliot about this species. It is closely allied to *M. tyrianthina*, but is a much larger bird. The principal differences consist in the upper-side, which is more golden, the green of the throat not so dark, the general colour of the underside more buffy-golden, and the colour of tail, which is bronze, with purplish reflections.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{1}{8}$ .

*Female*.—Upperside golden-green, shining green on forehead. Underside rufous on throat and breast, with small bronze spots on throat. Whitish on abdomen, washed with golden-green. Outermost rectrices with large grayish spots at tips.

104. METALLURA AENEICAUDA, Gould, P.Z.S., 1846, p. 87.

*Mellisuga aeneicauda*, Gray, Gen. Birds, vol. i., p. 113.

*Aglæactis aeneicauda*, Bon. Rev. and Mag. Zool., 1854, p. 253.

*Urolampira aeneicauda*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 68.

*Brassy Tail*, Gould, Mon. Troch., vol. iii., p. 192.

*La Métallure à queue d'airain*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 112.

*Habitat*.—Peru and Bolivia.

*Male*.—Upperside bronzy-green. Tail metallic bronze above, changing to blue in certain lights, beneath luminous

golden bronze, with reddish-purple reflections on margins. Throat luminous metallic green. Underside bronzy-green marked with buffy-brown. Undertail-coverts pale bronze-green, tipped with rufous. Anal region white. Wings purple brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside bronzy-green. Tail metallic bronze, changing to blue. Underside buffy-brown, each feather tipped bronzy-green. Undertail coverts rufous. Lateral and outermost feathers of tail slightly tipped with gray. Bill black. Same size as male.

This is a very rare species. My specimens were collected in Bolivia, by Buckley. Bridges is the discoverer of the species.

To show how specimens of one species differ, I give below the description of one of my male specimens:—Upperside bronzy-green. Tail purplish-bronze, changing into blue in certain lights. Throat luminous metallic gold. Tail beneath, luminous purple-bronze, distinct enough to make a new species with it; but it is not so.

\*105. METALLURA PRIMOLINA, Bourc., Rev., and Mag. Zool., 1853, p. 295.

*Urolampra primolina*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 68.

*Metallura Primolü*, Gould, Int. Troch., 1861, p. 112.

*Primoli's Humming Bird*, Gould, Mon. Troch, vol. iii., p. 194.

*Le Métallure de Primoli*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 116.

*Habitat*.—Ecuador.

*Male*.—Upper surface dark bronzy-green. Tail luminous bronzy-green, edged with coppery-green on the upper surface. Underside bronzy-green, darker on flanks. Throat luminous green, with base of feathers rufous. Undertail coverts bronzy-green edged with rufous. Anal region pure white. Wings purplish-brown. Bill and feet black.

Total length,  $3\frac{9}{16}$ . Wing  $2\frac{5}{16}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{9}{16}$ .

*Female (?)*.—Upper surface bronzy-green. The under surface has the base of the feathers rufous-white, darkest on the throat and abdomen with bronzy-green tips. Wings purplish-

brown. Tail luminous bronzy-green changing to purple in certain lights, on the upper surface, and metallic luminous grass-green on the under surface, the three outermost feathers tipped with brownish-gray. Bill and feet black.

Total length,  $3\frac{9}{16}$  in. Wing,  $2\frac{5}{16}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{9}{16}$ .

From Bourcier's Collection. "Elliot, loc. cit."

This rare species which seems to be very closely allied to *M. æneicauda* was discovered in Ecuador, by Mr. Osculati, and was dedicated by Bourcier to Count Primoli, grandson of Prince Canino.

\*106. METALLURA WILLIAMI, Bourc and Delatt., Rev. Zool., 1866, p. 308.

*Mellisuga Williami*, Gray, Gen. Birds, vol. i, p. 112.

*Urolampra Williami*, Cab. and Hein., Mus. Hein., t. iii., p. 68.

*Purple Tail*, Gould, Mon. Troch., vol. iii., p. 193.

*La Métallure de William*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 115.

*Habitat*.—Columbia.

*Male*.—Upper surface dark bronzy-green. Throat and upper part of breast luminous grass-green. Under surface bronzy-green, the base of the feathers buff. Wings purplish-brown. Tail dark green above, with bright purple reflections in certain lights, beneath luminous violet with green reflections. Bill and feet black.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{1}{2}$ .

Type in Elliot's Collection? "Elliot, loc. cit."

GENUS XXXVII. **Avocettinus**, Bon., Rev. and Mag. Zool., 1854, p. 256.

*Opisthoprora*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 76.

TYPE: *T.-eurypterus*, Loddiges.

Bill shorter than the head, maxilla straight until just at the tip, when it turns slightly upwards, mandible straight up to the middle, then turning sharply upwards. Wings long. Tail long, slightly forked, rectrices wide. Feet strong, hind toe of same length as middle toe and nail. Sexes alike.

*Habitat*.—Columbia.



107. AVOCETTINUS EURYPTERUS, Lodd., P.Z.S., 1832, p. 7.

*Trochilus georginae*, Bourc., P.Z.S., 1847, p. 48.

*Polytmus eurypterus*, Gray, Gen. Birds, vol. i., p. 109.

*Avocettula eurypterus*, Reich, Aufz. der Col., 1853, p. 6.

*Delattria georgina*, Bon., Rev. and Mag. Zool., 1854, p. 256.

*Opisthoprora eurypterus*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 76.

*Purple tailed Avocet*, Gould, Mon. Troch., vol. iii., p. 200.

*L'Avocettin euryptère*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 265.

*Habitat*.—Columbia.

*Male*.—Head bronze, rest of upperside bronzy-green. Median rectrices bronze, lateral bronzy-black with a green gloss, outermost tipped with buffy-white. Throat, breast, and centre of abdomen grayish-white, each feather tipped with green. Sides of neck, breast, abdomen, and flanks, shining green with rufous tinge. Lower part of abdomen, and undertail-coverts rufous, slightly tinged with green. Wings purplish-brown. Bill and feet black.

Total length, 4in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen,  $\frac{1}{2}$ .

*Female* (?).—Seems to be coloured exactly as the male, with outermost rectrices tipped white.

It is still a rare species in the collections. The type, which I believe is still in the Loddiges collection, was sent from Popayan.

GENUS XXXVIII. **Adelomyia**, Bonaparte. Rev. and Mag., Zool., 1854, p. 253.

ADELISCA, Cab. and Heine., Mus. Hein., 1860, t. iii., p. 72.

TYPE: *T. melanogenys*, Fraser.

Bill straight, about equal to the length of the head. Tail slightly rounded. Middle rectrices about the same length as the lateral, outermost shortest. Wings long, primaries slightly curved inward near the tips. Tarsi naked. Sexes alike.

*Habitat*.—Venezuela, Columbia, Ecuador, Peru, and Bolivia.

108. ADELOMYIA MELANOGENYS, Fras., P.Z.S., 1840, p. 18.  
*Trochilus sabinæ*, Bourc. and Muls., Ann. Soc. Agr., Lyon, 1846, p. 323.

*Mellisuga sabinæ*, Gray, Gen. Birds, vol. i., p. 112.

*Ramphomicron sabinæ*, Bon. Consp. Gen. Av., 1850, p. 79.

*Metallura sabinæ*, Reich., Aufz. der Col., 1853, p. 8.

*Adelisca melanogenys*, Cab. and Heine., Mus. Hein., 1860, t. iii., p. 72.

*Adelomyia maculata*, Gould, Mon. Troch., p. 199.

*Adelomyia cervina*, Gould, Ann. Mag. Nat. Hist., 1872, p. 453.

*Adelomyia aeneosticta*, Simon, Soc. Zool. de France, 1889, p. 223.

*Spotted Adelomyia*, Gould, Mon. Troch., vol. iii., p. 198, 199.

*L'Adélomye de Sabine*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 131.

*Habitat*.—Venezuela, Columbia, and Ecuador.

*Male*.—Upperside golden-green. Median rectrices bronzy-brown, lateral of same colour with the basal half of inner webs and tips buffy white. Some specimens have a purple gloss near the tips of lateral rectrices, just below the buffy tips. A white line behind the eye. Ear-coverts brownish-black. Underside pale buff, marked with bronzy spots on neck and breast, and shining golden feathers on sides of breast and flanks. Undertail-coverts pale buff, with a bronzy spot in the centre. Wings purplish-brown. Bill black.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Exactly the same, with the rectrices slightly rounded, and the underside of a paler buffy-white.

It is a common species, with a wide range. I have not been able to see any difference between my specimens from Venezuela, Columbia, and Ecuador, and I think that the names of *A. maculata* and *A. cervina*, Gould, cannot be retained as distinct species. It is quite probable that what Gould described as *A. cervina* were very adult males of *A. melanogenys*. I have several specimens, received from Columbia, which correspond exactly to that description.

I have also one specimen with the upperside pale slaty-gray. Tail and wing brownish-gray. All the rectrices, excepting the median, tipped with buffy-white. Underside whitish-gray, spotted with small brown spots on throat and flanks. If it should prove a distinct species, I propose the name of *Adelomya simplex* for it.

109. ADELOMYIA INORNATA, Gould, P.Z.S., 1846, p. 89.

*Mellisuga inornata*, Gray, Gen. Birds, vol. i., p. 112.

*Ramphomicron inornatus*, Bon. Consp. Gen. Av., 1850, vol. i., p. 79.

*Metallura inornata*, Reich., Aufz. der Col., 1853, p. 8.

*Adelisca inornata*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 72.

*Purple-throated Adelomya*, Gould, Mon. Troch., vol. iii., p. 197.

*L'Adélomye sans parure*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 127.

*Habitat*.—Peru and Bolivia.

*Male*.—Upperside shining golden-green. Tail bronzy-brown, with purplish reflections on lateral feathers, which are widely tipped with buff. A buffy-white stripe behind the eye. Ear-coverts blackish-brown. Underside brown, gradually passing to rufous on lower part of abdomen and flanks, and spotted with bronzy feathers. Centre of throat metallic blue. Wings purple-brown. Bill black.

Total length,  $3\frac{2}{8}$  in. Wing, 2. Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Exactly like the male, without any blue on the throat.

It is a rare species. I think it was discovered by Bridges in Bolivia. My specimens were collected in Bolivia, by Buckley.

\*110. ADELOMYIA CHLOROSPILA, Gould, Ann. and Mag. Nat. Hist., 1872, p. 452.

*Green-spangled Humming-bird*, Gould, Mon. Troch., Suppl., 1886, p. 66.

*L'Adélomye mouchetée de vert*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 129.

*Habitat*.—Peru.

*Male*.—Exactly like the preceding species, excepting the green spots on the throat, which, however, are very small and indistinct. *Possibly the same species*.—"Editor."

GENUS XXXIX. **Urosticte**, Gould, Int. Troch., p. 110.

TYPE: *T. benjamini*, Bourcier.

Bill slender, straight, longer than the head. Nostrils exposed. Wings moderate, pointed, reaching the end of tail. Tail slightly forked. Rectrices narrow, median shortest, next one slightly longer, the remaining three slightly longer, and of same length. Hind toe shorter than the middle one. Sexes unlike.

*Habitat*.—Ecuador.

111. UROSTICTE BENJAMINI, Bour., Compt. Rend., 1851, vol. xxvii, p. 187.

*Urosticte benjamini*, Reich., Aufz. der Colib., 1853, p. 13.

*Basiliinna benjamini*, Reich., Troch., Enum., 1855, p. 11.

*White tip*, Gould, Mon. Troch., vol. iii., p. 190.

*L'Urosticte de Benjamin*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 102.

*Habitat*.—Ecuador.

*Male*.—Upperside shining green. Four median rectrices purplish bronze, extensively tipped with white, and purplish-bronze at point, lateral, bronze at base of outer webs, rest purplish-bronze, darker at tips. A spot behind the eye white. Throat luminous metallic emerald-green, beneath which is a broad central spot of dark shining violet. Breast, abdomen, and undertail-coverts white, mingled with green. Flanks shining green. Wings purplish. Bill black.

Total length,  $3\frac{3}{4}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside golden-green. Uppertail-coverts shining green. Four median rectrices bronzy-green, coppery at tips, lateral purplish-bronze with white tips. White spot behind the eye. Underside white spangled with green, brilliantly and more profusely spotted on throat. Wings purplish. Bill black.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

This species was discovered in Ecuador by Bourcier, and was dedicated by him to Mr. Benjamin Leadbeater.

My specimens were collected in Ecuador by Buckley.

\*112. UROSTICTE INTERMEDIA, Tacz., P.Z.S., 1882, p. 36.

*Peruvian White-tip*, Gould, Mon. Troch., Suppl., 1886, p. 34.

*L'Urosticte intermédiaire.*

*Habitat*.—Peru.

*Male*.—Upperside shining golden-green. Tail deeply forked. Median rectrices green at base, then dark coppery-red with large white tips, with a small brown spot at the extremity, lateral and outermost green at base, passing to dark coppery-red, with white tips on lateral. Chin and throat brilliant metallic green, followed by a jugular spot dark violet. Breast and abdomen green, the central feathers margined with grayish-white. Undertail-coverts rufous and green. Vent white. Wings purplish-brown. Bill black.

Total length, 118 mill. Wing, 58. Tail, 80. Culmen, 22.

*Female*.—Upperside green, less golden than the male. Underside white spotted with green, more minutely on throat and breast, and more brilliantly than on the abdomen. Undertail-coverts rufous-white. Tail less forked than the male, median rectrices green, lateral and outermost ones green, passing to coppery, with large white tips. This rare species takes its place between *U. benjamini* and *U. ruficrissa*.

\*113. UROSTICTE RUFICRISSA, Lawr, Ann., Lyc., Nat. Hist., N.Y., 1864, vol. viii., p. 44.

*Red-vented White-tip*, Gould, Mon. Troch., Suppl., 1886, p. 33.

*L'Urosticte à sous caudales rousses*, Muls., Hist. Nat., Ois. Mou., 1876, vol. iii., p. 104.

*Habitat*.—Ecuador.

*Male*.—General plumage dark shining green. Throat luminous grass-green. Wings purplish-brown. Undertail-coverts rufous. Tail pale bronze-green with the four median feathers tipped white. Bill black. Feet brown.

Total length, 4½ in. Wing, 2¾. Tail, 2¼. Culmen, ¾.

*Female*.—Exactly like the female of *U. benjamini*, but slightly larger and with a longer bill.

This species is one of my desiderata.

GENUS XL. **Augastes**, Gould, Int. Troch., 1861, p. 123.

LAMPRURUS, Reich., Aufz. der Col., 1853, p. 12.

TYPE: *T. superbus*, Vieillot.

Bill straight, acutely pointed, serrated in the middle. Wings long, reaching the end of tail. Tarsi clothed. Tail rounded, nearly square. Rectrices wide.

*Habitat*.—Brazil.

114. AUGASTES SUPERBUS, Vieill., Encycl. Méth., t iii., p. 561

*Trochilus scutatus*, Natt. Temm. Pl. Col., No. 299, Fig. 3.

*Ornismya nattereri*, Less. Ois. Mou., 1829, p. 75.

*Hylocharis superba*, Gray, Gen. Birds, vol. i., p. 114.

*Natterer's Vizzor-bearer*, Gould, Mon. Troch., vol. iv., p. 221.

*L'Augaste superbe*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 150.

*Habitat*.—Brazil.

*Male*.—Forehead and throat metallic emerald-green, with pale golden reflections. Band across the crown, and ear-coverts extending to throat, black. A spot behind the eye white. Upperside sometimes bronzy-green or dark shining green. Uppertail-coverts grayish-bronze. Median rectrices rufous at base, sometimes golden bronze, or golden bronze at base and rest greenish-bronze, lateral varies also from greenish-bronze to bluish-green. Sides of throat and rest of underside shining indigo-blue, with a large buffy-white spot in the middle of the breast. In one of my specimens a wide buffy-white band crosses entirely the middle of chest. Undertail-coverts green, edged with grayish white. Bill and feet black. Wings purplish-brown.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{2}{5}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Upperside bronzy-green, golden on forehead. Ear-coverts brownish-black. Throat metallic-green, but not so brilliant as in the male. A white band across the breast. Abdomen and flanks greenish-blue. Undertail-coverts gray. Outermost rectrices with gray tips. Bill black.

This beautiful species is rather rare in the collections. My adult specimens differ so much that I really do not know if they are not two species mixed together.



115. AUGASTES LUMACHELLUS, Less., Rev. Zool., 1838, p. 315.  
*Trochilus lumachellus*, Bourc., Rev. Zool., 1846, p. 313.  
*Hylocharis lumachellus*, Gray, Gen. Birds, vol. i., p. 114.  
*Lamprurus lumachellus*, Reich., Aufz. der Col., 1853, p. 12  
*Hooded Vizor-bearer*, Gould, Mon. Troch., vol. iv., p. 221  
*L'Augaste lumachelle*, Muls., Hist. Nat. Ois. Mou., 1876,  
 t. iii., p. 148.

*Habitat*.—Bahia (Brazil).

*Male*.—Forehead and throat metallic pale golden-green, bounded beneath by a narrow line of greenish-blue. Forming a point on the throat, a patch of metallic ruby and topaz. Head, ear-coverts, and band round the throat velvety-black. A small white spot behind the eye. Upperside bronzy-green. A narrow white band crossing the breast. Underside golden. Undertail-coverts shining reddish-orange, slightly edged with gray. Tail metallic bronze-red, beneath very brilliant red. Wings purplish-brown, with bronzy reflections. Bill and feet black.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Upperside shining bronze-green, greenish on forehead. Ear-coverts and sides of throat brownish black. Throat and rest of underside as male, but less brilliant. Outermost rectrices tipped with gray.

It is a very rare species.

# GENUS XL1. **Phlogophilus**, Gould, P.Z.S., 1860, p. 310.

TYPE: *P. hemileucurus*, Gould.

Bill straight, long, and acutely pointed. Wings ample and rather rounded. Tarsi long and bare. Tail long. Rectrices narrow and rounded. Hind toe and nail shorter than middle toe and nail.

*Habitat*.—Ecuador.

116. PHLOGOPHILUS HEMILEUCURUS, Gould, P.Z.S., 1860,  
 p. 310.

*Elvira hemileucura*, Muls., Hist. Nat. Ois. Mou., 1874, t. i,  
 p. 264.

*Pied-tailed Humming-bird*, Gould, Mon. Troch., vol. v.,  
 p. 360.

*L'Elvire à queue mi-blanche*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 265.

Sex (?) Upperside shining grass-green. Median rectrices bronze-green with tips brownish black, lateral white with a wide band of purplish-black in the centre and white tips. Throat white tipped with green. Breast and centre of abdomen white. Flanks white at base, with tips shining green. Outermost rectrices purplish-black at base, the rest white. Bill black. Just under the mandible a rufous spot on chin. A buffy white spot behind the eye. Wings purplish brown. Feet and tarsi yellow, probably flesh colour when alive.

Total length,  $3\frac{1}{2}$  in. Wing 2. Tail,  $1\frac{2}{3}$ . Culmen,  $\frac{6}{8}$ .

I have only one specimen of this peculiar species.

GENUS XLII. **Ramphomicron**, Bon. Compt. Rend., 1850, p. 382.

TYPE: *O. microrhynchus*, Boissoneau.

Bill extremely short, acutely pointed. Wings long. Upper-surface and throat metallic. Tail deeply forked. Sexes unlike.

*Habitat*.—Columbia, Ecuador, Peru.

This genus forms the natural passage from *Metalluridae* to *Lesbidae*.

117. **RAMPHOMICRON MICRORHYNCHUM**, Boiss., Rev. Zool., 1839, p. 354.

*Trochilus brachyrhynchus*, Fras., P.Z.S., 1840, p. 16.

*Mellisuga microrhyncha*, Gray, Gen. Birds, vol. i., p. 112.

*Thorn-bill*, Gould, Mon. Troch., vol. iii., p. 189.

*Le Ramphomicron à petit bec*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 163.

*Hirondelle*,

*Habitat*.—Columbia, Ecuador, Peru.

*Male*.—Upperside metallic purple. Throat luminous light grass-green. Underside dark bronzy-green, slightly grayish-buff on the vent. Undertail coverts grayish-buff, greenish in the centre. Tail purple-black, with glossy tips. Wings purplish-brown. Bill black.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{12}{8}$ .

*Female*.—Upperside bronzy-green. Underside white, spotted with green. Undertail-coverts buff. Median rectrices dark-bronze, lateral purplish-black, the two outermost tipped white. Bill and feet black.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{2}{8}$ .

\*118. RAMPHOMICRON DORSALE, Salv. and Godm. Ibis., 1880,  
p 172.

*Simon's Thorn-bill*, Gould, Mon. Troch. Suppl., 1886, p. 61.  
*le Ramphomicron de Simons*,

*Male*.—Above black, slightly shaded with greenish, the rump narrowly bronzy-purple. Wings dusky. Tail deeply forked, purplish-black. Sides of the head and neck deep black. Throat very brilliant greenish-golden. Abdomen pale dusky-brown, washed with greenish-golden, especially on the flanks. Vent dull whitish, each feather marked down the middle with a greenish spot. Bill short, a little curved, black. Feet black. Iris dark brown.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{2}{8}$ .

*Female*.—Above green. Uppertail-coverts purplish-bronze. Tail purplish-black, the outer feathers tipped white. Underneath whitish. Throat and flanks spotted with greenish-gold, the middle of the throat marked with greenish-gold feathers. Outermost rectrices,  $1\frac{6}{8}$  in. long; median,  $1\frac{1}{8}$ .

This beautiful second species of *Ramphomicron* was discovered in the Sierra Nevada of Santa Marta, Columbia, by Mr. Simons.

## FAMILY V. LESBIDÆ,

OR FAMILY OF TRAIN-BEARERS.

Bill short, straight, acutely pointed, compressed in the genus *Cyanolestia*. Head sometimes crested. Wings long. Tail extremely long and deeply forked. Rectrices more or less broad throughout their length and generally brilliantly coloured on the upperside, rounded at tips. Throat of males more or less brilliantly coloured. Tarsi bare. Feet rather large. A patch of white feathers on each side of the lower part of the abdomen. Sexes unlike.

*Range*.—Venezuela, Columbia, Ecuador, Peru, Bolivia, and Argentine Republic.

TYPE: *Lesbia*, Less, Int. Gen. et Syn. des Ois. du Genre Trochilus, 1832, p. 17.

GENUS XLIII. **Zodalia**, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 281.

TYPE: *Zodalia orton*i, Lawrence.

Bill straight, shorter than the head. Tail long, deeply forked, feathers broad throughout their length.

*Habitat*.—Ecuador.

\*119. ZODALIA ORTONI, Lawr., Ann. N.Y. Lyc. Nat. Hist., 1869, Vol. ix., p. 269.

*Quito Purpleback*, Gould, Mon. Troch., Suppl., p. 54.

*La Zodalie d'Orton*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 282.

*Habitat*.—Quito (Ecuador.)

*Male*.—Entire upper plumage and wing coverts of a rich glossy purple, the concealed bases of the feathers are green. Uppertail-coverts similar in colour to the back, but marked centrally between the purple and green with crimson. Tail brownish-black except the two central ones which are green; the ends of the eight middle tail feathers are largely marked with a deep vinous bronzy-crimson, most in extent on the short central feathers, the long outer feather on each side ends with obscure bronzy-green; the outer edge of lateral feather is buff for three-quarters of its length from base, this colour occupying only about one third of the web. The undersurface of the tail is steel-blue, bronzy at the ends of the feathers; the shafts of the two long lateral feathers are whitish at base for about half their length. Wings brownish-purple. Throat brilliant metallic pale green. Sides of neck, breast, upper part of abdomen and flanks shining green, lower part of abdomen ashy-buff. Bill and feet black.

Total length,  $5\frac{3}{4}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $3\frac{7}{16}$ . Bill,  $\frac{1}{2}$ .

*Female*.—Unknown.

This species was discovered by the well-known collector, Orton, and it was dedicated to him by Mr. Lawrence. The above description was taken from the Annals New York Lyceum of Natural History.

- \*120. ZODALIA GLYCERIA, Bon., Rev. and Mag. Zool, 1854,  
p. 252.

*Cometa mossai*, Gould, Athen, 1853.

*Purple-tailed Comet*, Gould, Mon. Troch, Suppl., p. 55.

*Sparganura mossai*, Cab. and Hein, Mus. Hein, 1860,  
t. iii., p. 52.

*La Zodalie de glycère*, Muls., Hist. Nat. Ois. Mou., 1876,  
t. iii., p. 284.

*Habitat*.—Columbia.

*Male*.—Head, back of neck, wing-coverts, back, and tail-coverts shining green. Wings purplish-brown. Chin and throat metallic light olive-green. Sides of neck and under-surface buff with a spot of deep shining green on the tip of each feather. Tail dark reddish-purple, passing into deep bluish-green at the tip, except on the outer feathers where the hue is so faint as to be scarcely perceptible, the outer feathers also have the basal three-fourths of the shaft and the outer webs buffy-white, the base of the shaft paler than the web; basal three-fourths of the shaft of next feather also buffy-white. Undertail-coverts buff with a brown mark in the centre near the tip. (Gould, Monog. Troch.)

Total length, 6 in. Wing,  $2\frac{1}{2}$ . Tail,  $3\frac{1}{4}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Unknown.

- \*121. ZODALIA CAROLI, Bourc., P.Z.S., 1847, p. 48.

*Hylocharis caroli*, Gray and Mitch, Gen. Birds, vol. i.,  
p. 115.

*Calliphlox caroli*, Reich., Aufz. der Col., 1853, p. 12.

*Avocettinus carolus*, Bon., Rev. and Mag. Zool., 1854,  
p. 256.

*Cometes caroli*, Gould, Mon. Troch., vol. iii., p. 17.

*Polyonymus caroli*, Hein. Journ for Ornith, 1863, p. 206.

*Leobia caroli*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii.,  
p. 298.

*Charles's Comet*, Gould, Mon. Troch., vol. iii., p. 177

*La Léobie de Charles*, Muls., Hist. Nat. Ois. Mou., 1876,  
t. iii., p. 298.

*Habitat*.—Peru.

*Male*.—Crown, wing-coverts and uppersurface dull greenish-bronze, becoming of a greener cast on the lower part of back and uppertail-coverts. Wings purplish-brown. Four middle tail feathers bronzy-green, the remainder black, with violet reflections, the outer one with a stripe of dull or buffy-white along the apical portion of the outer web. Behind the eye a small white spot, and a small streak of buff from the angle of the mouth. Throat red. Undersurface pale bronzy-green, each feather slightly fringed with gray. On each flank near the back a tuft of white. Vent and undertail-coverts buffy-white, with a streak of brown down the centre of each feather. Bill black.

Total length,  $5\frac{1}{8}$  in. Wing,  $2\frac{1}{4}$ . Tail, 2. Culmen,  $\frac{3}{4}$ .

"Gould, Mon. Troch."

GENUS XLIV. **Sappho**, Reich., Syst. Av., 1849, p. 40.

*Cynanthus*, Tschud, Consp., 1844, p. 36.

*Cometes*, Gould, P.Z.S., 1847, p. 31.

*Sappho*, Reich., Syst. Av. Natur., 1849, pl. 40.

*Sparganura*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 52.

*Polyonymus*, Heine, Journ. for Ornith., 1863, p. 206.

*Leobia*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 297.

TYPE: *Sappho sparganura*, Shaw.

Bill longer than the head, slightly arched. Tail brilliantly coloured and deeply forked. Rectrices very wide, round at tips. Throat metallic. Tarsi naked. Hind toe and nail nearly as long as middle toe. Sexes unlike.

*Habitat*.—Columbia, Peru, Bolivia, and Argentine Republic.

122. SAPPHO SPARGANURA, Shaw, Gen. Zool., vol. viii., p. 291.

*Trochilus chrysurus*, Cuv. Regn. Anim., 1829, t. i., p. 426.

*Ornismya sappho*, Less, Ois., Mouch., 1829, p. 105.

*Orthorhynchus chrysurus*, d'Orb. and Lafr., Syn. Av., 1838, p. 26.

*Mellisuga sparganura*, Gray, Gen. Birds, 1844, vol. i., p. 113.

*Cometes sappho*, Gould, P.Z.S., 1847, p. 31.

*Lesbia sparganura*, Bon., Rev. Zool., 1854, p. 252.

*Sparganura sappho*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 52.



*The Sappho Comet*, Gould, Mon. Troch., vol. iii., p. 173.

*Le Comètes sappho*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 275.

*Habitat*.—Bolivia, Argentine Republic.

*Male*.—Head, upper part of back and wing-coverts bronze-green. Back and uppertail-coverts shining purple-crimson. Rectrices dark-brown at base, remaining part metallic fiery-orange, with a large, velvety black spot at tips. Basal half of outer web of external rectrices pale brown. Throat metallic grass-green. Remaining part of underside golden-green. Flanks, and undertail-coverts rufous. A patch of white feathers on each side of lower part of vent. Wings pale brown. Bill and feet black.

Total length, 7in. Wing,  $2\frac{6}{8}$ . Tail,  $4\frac{1}{8}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Crown and back golden-green, reddish on rump. Uppertail-coverts shining crimson. Central rectrices metallic fiery-red, with a slight brownish band at tips, lateral brownish at base, remainder fiery-red, outermost brown on inner web, remainder pale buff, nearly white. Throat buffy-white, spotted with green. Breast and flanks white, with large green spots. Abdomen grayish-white. Undertail-coverts pale buff.

Total length,  $4\frac{1}{2}$ in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

I have several specimens of both sexes of this splendid species. Some were collected in Bolivia many years ago, the others were collected by Mr. White in Argentine Republic.

123. *SAPPHO PHAON*, Gould, P.Z.S., 1847, p. 31

*Ornismya chrysurus*, Var., d'Orb. and Lafr. Syn. Av., 1838, p. 27.

*Cometes phaon*, Gould, P.Z.S., 1847, p. 31.

*Mellisuga phaon*, Gray, Gen. Birds, Vol. 1, p. 113.

*Lesbia phaon*, Bon. Rev. Zool, 1854, p. 252.

*Sparganura phaon*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 52.

*The Phaon Comet*, Gould, Mon. Troch., Vol. iii., p. 175.

*Le Comètes phaon*, Muls., Hist. Nat. Ois. Mou., 1876, Vol. iii., p. 279.

*Habitat*.—Bolivia, Peru.

*Male*.—Head and neck brownish green. Back and upper tail coverts dark crimson. Tail, basal half blackish-brown, remainder metallic crimson with large velvety black spots at tips. Throat metallic grass-green, remainder of underside brownish-green. Undertail coverts pale buff with a central line bronzy-green. Wings brown. Bill and feet black.

Total length,  $6\frac{6}{8}$  in. Wing,  $2\frac{3}{4}$ . Tail, 4. Culmen,  $\frac{7}{8}$ .

*Female*.—Like the preceding species, but the tail is dark crimson.

I have a large series of this species collected by Buckley, near to la Paz, Bolivia.

GENUS XLV. **Lesbia**, Lesson, Ind. Gen. et Syn. des Ois. du Genre Trochilus, 1832, p. 17.

*Cynanthus*, Bon. Consp. Gen. Av., 1850, p. 81.

*Agaclyta*, Cab. et Hein. Mus. Hein., 1860, t. iii., p. 70.

*Psalidoprymna*, Cab. et Hein., Mus. Hein., 1860, p. 52.

TYPE: *Lesbia nuna*, Lesson.

Bill short, straight. Tail deeply forked, rectrices broad, the outermost very long. Throat in males brilliantly coloured. Sexes different.

*Habitat*.—Columbia, Ecuador, Peru and Bolivia.

124. LESBIA NUNA, Less., Suppl. Ois. Mou, p. 169.

*Ornismya Gouldi*, d'Orb et Laf. Syn. Av., t. ii., p. 27.

*Cynanthus bifurcatus*, Bon. Consp. Gen. Av., 1850, p. 81.

*Psalidoprymna bifurcata*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 53.

*Nouna Koali*, Gould, Mon. Troch., vol. iii., p. 169.

*La Lesbie Nuna*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 291.

*Habitat*.—Peru.

*Male*.—Upperside dark bronzy-green. Rectrices black at base, all but the outermost ones with their apical half metallic grass green, the outermost ones black, with a slight metallic green tip. Throat metallic grass green. Sides of neck, breast and flanks bronzy-green, washed with rufous on lower part of abdomen, beneath which is a patch of white feathers.

Undertail-coverts green, margined with buff. Tail purplish-black with the basal half of outer feathers grayish white. Thighs buff. Bill black.

Total length,  $7\frac{1}{2}$  in. Wing,  $1\frac{6}{8}$ . Tail, 5. Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside bronzy-green. Underside white, washed with green, sometimes with a few metallic golden spots on the throat. Undertail coverts buffy-white. Tail coloured like that of the male, but much shorter. Bill black.

This fine species was discovered by Delattre, at Mayobamba, Peru.

My specimens were collected by Mr. H. Whitely in Peru.

\*125. LESBIA EUCHARIS, Boure, Rev. Zool., 1848, p. 274.

*Cynanthus eucharis*, Bon., Rev. and Mag. Zool., 1854, p. 252.

*Train bearer*, Gould, Mon. Troch., vol. iii., p. 171.

*La Lesbie eucharis*, Muls., Hist. Nat. Ois. Mou., vol. iii. p. 200.

*Habitat*.—Columbia.

*Male*.—Entire upper surface, breast, abdomen, and flanks bronzy-green. Throat metallic grass-green. Vent and undertail-coverts buff, the latter with green centres. Wings purplish brown. Rectrices brownish-black, largely tipped with grass-green, except the outermost one, which has a bronze tip. Bill black.

Total length,  $7\frac{5}{8}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $5\frac{5}{8}$ . Culmen,  $\frac{7}{16}$ .

*Female*.—Above golden-green, beneath buff spangled with green. Tail like that of the male but shorter, and with the outer web of outermost feather grayish-white for three fourths of its length.

The above descriptions were taken from Elliot's Synopsis of the Humming Birds.

126. LESBIA BOLIVIANA, Boucard, H. Bird, 1891, t. i., p. 43.

*Bolivian Train-bearer*,

*La Lesbie bolivienne*,

*Habitat*.—Bolivia.

*Male*.—Upperside, breast, and flanks golden-green. Throat metallic golden-green. Wings purplish-brown. Vent deep-buff. Undertail-coverts buff, with a narrow central line green.

Tail purple-black. The three central rectrices black at base, with their apical half metallic golden-green, the two next purple-black, with metallic golden tip, and the two outermost purple-black, with a scarcely visible golden tip, rufous-gray on the basal outer web for about the third of its length. Bill black.

Total length,  $7\frac{3}{4}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $5\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Unknown.

The principal differences between this species and *L. nuna* are the general colouration of its plumage, and the colour of the throat and tips of rectrices, which are golden instead of deep grass-green.

It was discovered by Buckley in Bolivia.

Type in my collection.

127. *LESBIA GOULDI*, Lodd, P.Z.S., 1832, p. 7.

*Ornismya silphia*, Less., Rev. Zool., 1840, p. 73.

*Mellisuga gouldi*, Gray, Gen. Birds, vol. i., p. 113.

*Cynanthus gouldi*, Bon., Consp. Gen. Av., 1850, vol. i., p. 81.

*Agaclyta gouldi*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 70.

*Bogota Train-bearer*, Gould, Mon. Troch., vol. iii., p. 167.

*La Lcsbic de Gould*, Muls., Hist. Nat., Ois. Mou., 1876, vol. iii., p. 294.

*Habitat*.—Columbia.

*Male*.—Upperside, breast, flanks, and abdomen golden-green, a patch of white feathers on each side of lower part of abdomen. Under-tail coverts green, margined with buff. Rectrices brownish-black at base, remaining part metallic green. Outermost one, black with shining green tip, the outer web grayish-buff to half its length, completely hidden by the median rectrices. Wings purplish brown. Bill black.

Total length,  $6\frac{1}{2}$  in. Wing, 2. Tail,  $4\frac{1}{2}$ . Culmen,  $\frac{3}{8}$ .

*Female*.—Upperside golden-green. Outer rectrices brown, much shorter than those of the male, three fourths of the basal outer web grayish buff, and hidden by the median rectrices, tips grayish buff. Underside grayish, speckled with green. Bill black.

Common in Columbia. It was dedicated by Lesson to the celebrated English Ornithologist, the late Mr. John Gould.

128. *LESBIA GRACILIS*, Gould, P.Z.S., 1846, p. 86.

*Mellisuga gracilis*, Gray, Gen. Birds, vol. 1, p. 113.

*Cynanthus gracilis*, Bon., Consp., Gen., Av., 1850, vol. i., p. 81.

*Graceful Train-bearer*, Gould, Mon. Troch., vol. iii., p. 168.

*La Lesbie délicate*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 296.

*Habitat*.—Ecuador, Peru.

*Male*.—The only differences existing between this species and *L. gouldi* are: the length of its tail which is half an inch shorter in all the specimens which I have from Ecuador, the outer grayish buff web which is constantly half an inch longer than the longest median rectrices, the patch of feathers beneath the lower part of the abdomen, and the undertail-coverts which are green, greatly margined with buff.

\*129. *LESBIA CHLORURA*, Gould, P.Z.S., 1871, p. 504.

*Green-tailed Train-bearer*, Gould, Mon. Troch., Suppl., p. 53.

*La Lesbie à queue verte*.

*Habitat*.—Peru?

*Male*.—Crown of the head and all the upper surface golden green, gorget glittering green, rounded, and well defined as in *L. Gouldi*, abdomen mottled green and buff, its lower portion and the undertail-coverts pure buff. Wings purplish-brown, the eight central feathers entirely light green, the external one on each side olive, finely powdered and tipped with green, and having the outer web buff for more than half its length from the base.

Total length,  $6\frac{1}{2}$  in. Wing, 2. Tail,  $5\frac{3}{8}$ . Culmen,  $\frac{9}{16}$ .

"Gould's Mon. Trochil. Suppl. 1887, p. 53."

According to Elliott, this species is the same as *L. Gouldi*.

130. *LESBIA VICTORIAE*, Bourc. and Muls. Ann. Soc. Agr. Lyon, 1846, t. ix., p. 312.

*Trochillus Amaryllis*, Bourc. and Muls., Rev. Zool., 1848, p. 273.

*Mellisuga victoriae*, Gray, Gen. Birds, vol. i. p. 113.

*Cynanthus amaryllis*, Bon. Rev. and Mag. Zool., 1854, p. 252.

*Psolidoprymna amaryllis*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 53.

*Train-Bearer*, Gould, Mon. Troch., vol. iii., p. 170.

*Large Tain-Bearer*,

*La Lesbie de Victoire*, Muls., Hist. Nat. Ois. Mou., t. iii., p. 287.

*Habitat*.—Columbia, and Ecuador.

*Male*.—Upperside, breast, upper part of abdomen and flanks golden-green. Throat brilliant metallic golden-green. Lower part of abdomen and undertail-coverts rufous. Tail purplish black, each feather tipped with greenish-bronze, the two outermost, more than twice longer than the longest of the median rectrices. Wings purplish-brown. Bill black.

Total length, 9in. Wing,  $2\frac{3}{4}$ . Tail,  $6\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside golden-green. Underside white spotted with green, a patch of splendid metallic gold feathers on centre of throat. Undertail-coverts buff. Tail half the length of that of the male, coloured the same, outer web of outermost feather grayish-brown to within an inch-and-a-half of tip.

Dedicated by Mulsant to his mother, Madame Victoire Mulsant.

131. LESBIA AEQUATORIALIS, Boucard, Hum. Bird, 1893, vol. iii., p. 6.

*Ecuador Train-Bearer*.

*La Lesbie de l'Equateur*.

*Habitat*.—Ecuador.

*Male*.—Upperside, sides of throat and breast, vent and flanks grass-green. Chin and throat metallic grass-green. Lower part of abdomen and undertail-coverts pale rufous. Rest of plumage as *L. victoriae*. Tail longer, with tips of central rectrices greener than in the preceding species.

Total length,  $9\frac{1}{2}$ in. Wing,  $2\frac{3}{4}$ . Tail, 7. Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside grass-green. Underside pale rufous, washed with green. Throat white, speckled with green. A small patch of pale golden feathers in the centre of throat. Tail, half the length of that of male and coloured similarly.

I have separated this species from *L. Victoriae*, because in the many specimens which I have, (over one hundred), collected



at Rio Napo, by Buckley, the differences in colour mentioned above, are constant, and it is impossible to confound the two species.

Types in Boucard's Museum.

GENUS XLVI. **Cyanolesbia**, Stej. Auk., 1885, t. ii., p. 46.

*Cynanthus*, Sw. Class. Birds, 1837, vol. ii., p. 330.

*Lesbia*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 71.

*Cyanolesbia*, Berlep, Col. Art. Bog. Coll., 1888, p. 14.

TYPE: *T. forficatus*, Edwards.

Bill shorter than the head, straight, graduating rapidly at tip to a sharp point. Wings long. Crown and head covered with metallic feathers forming a crest. Patch of metallic feathers in the centre of throat. Tail long, deeply forked, brilliantly coloured on the upperside. Tarsi bare. Sexes unlike.

*Habitat*.—Venezuela, Columbia, Ecuador, Peru and Bolivia.

132. CYANOLESBIA GORGO, Reich., Aufz. der Col., p.p. 8-24.

*Cynanthus forficatus*, Edw. Birds, Tab. 33, pl. 1763.

*Trochilus cyanurus*, Steph. Shaw, Gen. Zool., vol. xix., p. 239.

*Ornismya kingi*, Less. Trochil., 1829, p. 107.

*Mellisuga cyanura*, Gray, Gen. Birds, vol. i., p. 113.

*Lesbia forficata*, Reich., Aufz. der Col., 1853, p. 8.

*Mellisuga salvadori*, Bienvenut, Ann. Zool. Mus. Flor., 1865, p. 204.

*Blue-tailed Sylph*, Gould, Mon. Troch., vol. iii., p. 172.

*Le Cynanthe cyannure*, Muls., His. Nat. Ois. Mou., 1876, t. iii., p. 269.

*Habitat*.—Venezuela, Columbia.

*Male*.—Crown metallic grass-green, bordered on the sides with a greenish-black line. Upper and underside bronzy-green, darker on back. Upper and undertail-coverts shining-green. Centre of throat metallic purple. Central rectrices black with the outer webs dark shining blue, and the portions that project beyond the tips of one another, metallic light blue.

In some specimens, the blue is replaced by metallic green, the two outermost ones black for half their length, then metallic purple-blue. Underside of tail purplish-blue. Wings dark brown; a white patch on each side of lower part of vent. Bill black.

Total length, 8in. Wing,  $2\frac{3}{8}$ . Tail,  $5\frac{6}{8}$ . Culmen,  $\frac{1}{16}$ .

*Female*.—Head metallic dark green. Upperside bronzy-green. Throat white spotted with green feathers. Breast abdomen and undertail-coverts buff. Flanks rufous washed with green. Central rectrices shining-green, lateral black, with outer webs and tips blue, outermost black, tipped white. White spots under and behind the eyes. Bill black.

Total length,  $4\frac{1}{2}$ in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{5}{8}$ .

I have received a number of adult male specimens from Merida (Venezuela), which have the crown of a lighter green, no colour on the throat, and are golden-green. The underside is quite distinct of the colour of *C. gorgo*.

If it should prove a distinct species, I propose the name of *Cyanolesbia meridana* for it.

I have adopted the name *gorgo* for this species because it cannot be relied upon with certainty, on the name of *T. forficatus*, L. for that bird.

133. CYANOLESBIA COELESTIS, Gould, Mon. Troch., Intr. 1861, p. 102.

*Ecuador Train-bearer*, Gould, Mon. Troch., Suppl., p. 56.

*Le Cynanthe bleu celeste*,

*Habitat*.—Ecuador.

This species, which is closely allied to the preceding, can be distinguished by the colour of the underside, which is coppery brown. As it is constant, I think the species is valid. The specimens which I have of this species were collected in Ecuador by Buckley.

134. CYANOLESBIA MOCOA, Delatt. and Bourc., Rev. Zool., 1846, p. 311.

*Mellisuga smaragdinus*, Gray, Gen. Birds, vol. i., p. 113.

*Cynanthus smaragdicaudus*, Gould, Mon. Troch., vol. iii., p. 173.

*Leshia mocoa*, Reich., Aufz. der Col., 1853, p. 8.

*Green-tailed Sylph*, Gould, Mon. Troch., vol. iii., p. 172.

*Le Cynanthe mocoa*, Muls., Hist. Nat., Ois. Mouch., 1876, t. iii., p. 272.

*Habitat*.—Ecuador, Peru.

*Male*.—Crown brilliant metallic-green. Upperside shining bronze-green, greenish on lower part. Uppertail-coverts shining green. Basal half of the two median rectrices bluish-black, remaining portion brilliant metallic green, the next two are bluish-black four-fifths of their length, with outer webs and tips metallic green; the outermost ones are black for two-thirds of their length, remaining portion brilliant metallic-green. A metallic blue spot on throat. Wings purplish brown. Bill and feet black.

Total length,  $7\frac{1}{4}$  in. Wing,  $2\frac{3}{4}$ . Tail, 5. Culmen,  $1\frac{1}{2}$ .

*Female*.—Like the preceding species with throat and breast white, the first spotted with bronze-green feathers, and rest of underside rufous.

This magnificent species was discovered by Delattre, near Mocoa, Ecuador.

I have several adult specimens received from Bogota, which differ by the colour of the crown, which is golden-green, and the upperside is of a lighter green. The throat is brownish golden-green without any blue at all. If it should prove a distinct species, I propose the name of *C columbiana* for it.

135. CYANOLESBIA BOLIVIANA, Gould, Mon. Troch., Suppl., p. 57.

*Bolivian Sylph*, Gould, Mon. Troch. Suppl., p. 57.

*Le Cynanthe de Bolivie*,

*Habitat*.—Bolivia.

*Male*.—Crown most brilliant golden-green. Upperside golden-green, with dark reflections. Rump and uppertail-coverts shining green. Tail like *C mocoa*, but shorter, and all the rectrices wider, the metallic green of tips has a bluish reflection on inner webs. Centre of throat metallic steel-blue, with greenish reflections, rest of underside golden. Wings purple-brown. Bill and feet black.

Total length,  $6\frac{1}{2}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $4\frac{1}{2}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Crown shining green. Upperside golden bronze, passing to green on the rump and uppertail-coverts. Throat

white, washed with green. Breast, abdomen, and undertail-coverts rufous. Flanks golden green. Central rectrices shining green; lateral bluish-black on inner webs, the rest and tips shining green, outermost ones, bluish-black tipped white.

Total length, 4in. Wing, 2. Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

This beautiful species was discovered in Bolivia, by Buckley in 1874.

\*136. CYANOLESBIA GRISEIVENTRIS, Tacz. P.Z.S., 1883, p. 72.

*Gray bellied, Train-bearer*, Gould, Mon. Troch., Suppl. p. 56.

*Le Cynanthe du Pérou.*

*Habitat.*—Peru.

Upperside green, with the forehead scaly for a long distance and very brilliant. Underside entirely pale ashy-gray. Throat bright blue, the feathers white at the base, vent white, wing-coverts uniform with the back, the edge of the wing white, first primary externally margined with white. Tail deeply forked, brilliant green, the median rectrices with a broad apical lustre of reddish copper, outermost bluish-black with green tips. Tail underside bluish-green. Bill black.

Length of wing, 81 mill. Tail, 90. Culmen, 25.

This species was discovered in Peru, by Mr. Jelsky.

GENUS XLVII. **Neolesbia**, Salvin, Cat. Birds, 1892. p. 145.

*Cyanolesbia*, Berlepsch, J. fur Ornith., 1887, p. 326.

Bill short and straight, slightly decurved. Tail long and deeply forked. Rectrices wide, dark steel blue.

TYPE: *Cyanolesbia nerkhorni*, Berl. J. fur Ornith., 1887, p. 326.

*Habitat.*—Columbia.

\*137. NEOLESBIA NERKHORNI, Berlepsch, Berch, eines, Neuen. Colib., Zeiftr fur Ornith., 1887, p. 178.

*Nerkhorn's Blue-tailed Sylph.*

*le Cynanthe de Nerkhorn.*

*Habitat.*—Columbia.

*Male.*—Head metallic blue. Upperside shining greenish blue. Throat metallic green with bluish reflections. Breast

golden-green. Abdomen and flanks bluish-brown. Tail shining violet-blue. Undertail-coverts bluish-green, margined with white. Bill and feet black.

Total length, 6in. Wing,  $2\frac{1}{2}$ . Tail, 3. Culmen, 5.

This very rare species was sent from Columbia to Mr. A. Nerkhorn. He submitted it to Hans von Berlepsch, who dedicated it to his friend.

It forms the passage of Lesbidae to Thaluranidae.

## FAMILY VI. THALURANIDAE,

### OR FAMILY OF WOOD-NYMPHS.

Bill black, longer than the head, slightly curved. Body of medium size. Underside, back, and wing-coverts brilliantly coloured. In some species the forehead is also brilliantly coloured. Wings long and narrow. Tail deeply forked. Rectrices wide. Tarsi clothed. Sexes unlike.

TYPE: *Thalurania*, Gould, P.Z.S. 1848, p. 13.

GENUS XLVIII. **Thalurania**, Gould, P.Z.S. 1848, p. 13.

MELLISUGA, Boie. Isis., 1831, p. 545.

GLAUCOPIS, Burm. Th. Braz., 1856, p. 333.

TYPE: *T. furcatus*, Gmelin.

Bill longer than the head, slightly curved. Wings long. Tail forked. Sexes unlike.

*Habitat*.—Costa - Rica, Veragua, Trinidad, Venezuela, Guiana, Brazil, Colombia, Ecuador, Peru and Bolivia.

138. THALURANIA GLAUCOPIS, Gmel., Syst. Nat., 1788, vol. i., p. 497.

*Trochilus frontalis*, Land. Ind. Ornith., 1790, vol. 1., p. 318.

*Ornismya glaucopis*, Less, Ois. Mou., 1829, p. 175.

*Polytmus glaucopis*, Gray, Gen. Birds, vol. i., p. 108.

*Coeligena glaucopis*, Reich., Troch., Enum., 1855, p. 3.

*Glancopis frontalis*, Burm., Th. Braz, 1856, p. 333.

*Thalurania lucix*, Lawr., Ann. Lyc. Nat. Hist., N.Y., 1862, vol. vii., p. 2.

*Brazilian Wood-Nymph*, Gould, Mon. Troch., vol. ii., p. 99.

*La Thaluranie glaucope*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 60.

*Habitat*.—Brazil.

*Male*.—Crown metallic deep-blue. Upperside dark grass-green. Underside shining green with golden reflections. Undertail-coverts shining green edged with gray. Tail steel-blue. Wings bluish-black. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside shining green. Underside gray, washed with green on flanks. Median rectrices green, lateral green at base, then bluish-black, tipped white.

Common in Brazil.

I possess one female specimen, from Costa de Beauregard's collection, with the names of *Oiseau Mouche Modeste* and *simplex* upon the ticket.

139. *THALURANIA COLUMBICA*, Bourc and Muls., Rev. Zool., 1843, p. 2.

*Polytmus columbicus*, Gray, Gen. Birds, vol. i., p. 108.

*Coeligena columbica*, Reich., Troch., Enum., 1855, p. 3.

*Thalurania venusta*, Gould, P.Z.S., 1850, p. 163.

*Columbian Wood-Nymph*, Gould, Mon. Troch., vol. ii., p. 106.

*La Thaluranie de Colombie*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 64.

*Thalurania columbica*, var. *nigra*, Boucard, H. Bird, vol. i., p. 26.

*Habitat*.—Costa-Rica, Veragua, Panama, Columbia and Peru.

*Male*.—Crown of head and a band across the back, wing-coverts and abdomen, metallic ultramarine blue. Nape, back and abdomen, bronze-green. Uppertail-coverts green. Tail bluish-black. Wings purplish brown. Throat and breast shining emerald-green. Feet flesh color. Bill black.

Total length, 4 in. Wing,  $2\frac{1}{8}$ . Tail, 2. Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside golden green, more green on lower part of back, and on undertail-coverts. Underside gray with few green feathers on side of breast and on flanks. Median



rectrices green, lateral green at base, rest steel-blue with white tips.

I have a large series of this species, some collected by myself at Costa-Rica and Panama, others sent from Columbia, and some collected by Hauxwell at Nauta, Peru. The specimens from Costa-Rica, Panama and Peru, are not so bronzy on nape, and have a wide ultramarine-blue band on back; but otherwise they are exactly the same as the Columbian specimens, and I don't think necessary to maintain the name of *T. venusta* for these specimens.

I have also one pair of these birds collected at Valencia, Columbia, in which the shining emerald-green of the throat covers only the throat and upper-part of the breast. The neck, back and rump are all green, without the bronzy tinge constant on all the other specimens which I have under the name of *T. columbica*. The female is also distinct, having the flanks and abdomen green. If it should prove a different species, I propose the name of *Thalurania valenciana* for this bird.

\*140. THALURANIA TOWNSENDI, Ridgw., P.U.S.M., 1888,  
p. 590-591.

*Townsend's Wood-Nymph.*

*La Thaluranie de Townsend.*

*Habitat.*—Segovia River, Honduras.

*Male.*—Forehead rich metallic royal purple; rest of pileum dull blackish-green, only slightly metallic; hind neck and upper part opaque black; scapulars rich metallic royal purple; lower back, rump, and uppertail-coverts metallic grass-green; tail uniform purplish blue-black; remiges purplish-dusky; wing-coverts metallic bluish-velvet, the larger tipped with metallic green. Chin, throat and chest rich metallic Paris green; median portion of breast metallic emerald-green, changing gradually to more bluish-green on belly; sides of breast metallic blue; sides and flanks greenish-blue. Under-tail coverts blue-black edged with grayish-white. Bill black. Feet dusky brownish.

Total length, 3.95. Wing, 2.10. Tail, 1.55. Culmen, 0.71.

*Female.*—Above metallic-green more yellowish for anterior half, tinged with bluish on uppertail-coverts and lesser wing coverts; middle tail feathers bluish-green, next pair similar,

but terminal portion blue-black, next pair with the blue-black more extended and the extreme tip pale grayish or grayish-white, each succeeding feather with the white tip and sub-terminal blue-black space gradually more extended, until on the exterior feather the basal green is indistinct, and the white terminal spot about 0.20 long. Sides of head below eye, chin, throat, and lower parts generally, except sides and flanks dull grayish white, the sides and flanks metallic grass-green, like the back. Bill black.

Total length, 3.50. Wing, 1.85. Tail, 1.35. Culmen, 0.75.

Similar to *T. columbica*, but much smaller, and male with lower breast emerald-green, the sides, flank and belly, bluish-green, instead of rich purplish-blue.

141. *THALURANIA ERYPHILE*, Less. Hist. Colib. p. 148.

*Polytmus eriphyle*, Gray, Gen. Birds, vol. i., p. 108.

*Coeligena eriphyle*, Reich., Troch., Enum., 1855, p. 3.

*Glaucopsis eriphyle*, Burm. Th. Bras., 1856, vol. ii., p. 334.

*Brazilian Wood-Nymph*, Gould, Mon. Troch., vol. ii., p. 108.

*Green Headed Wood-Nymph*.

*La Thaluranie eriphyle*, Muls. Hist. Nat., Ois. Mou., 1876, vol. iii., p. 68.

*Habitat*.—Brazil.

*Male*.—Crown and throat metallic emerald-green. Upper-side metallic green. Shoulders, breast, and upper part of abdomen metallic purple-blue. Flanks and lower part of abdomen green, with a large white tuft at base of abdomen. Undertail-coverts shining-green. Tail steel-blue. Wings purple-brown. Bill black.

Total length, 4½ in. Wing, 2½. Tail, 2. Culmen, 1¼.

*Female*.—Upperside shining-green. Throat, breast and abdomen pale gray, with a few green feathers on sides of breast and flanks. Wing-coverts shining-blue. Tail steel-blue with white tips on outermost rectrices. Bill black. Feet flesh color.

It is a very rare species and quite distinct from *T. verticeps*. My two specimens of this species were collected by Mr. Gounelle in Brazil.

142. *THALURANIA FANNIAE*, Bourc. and Del., Rev. Zool, 1846,  
p. 310.

*Thalurania verticeps*, Gould, Jard. Contr. Ornith., 1851,  
p. 107.

*Ricordia verticeps*, Reich., Aufz., der Col., 1853, p. 8.

*Chloristes verticeps*, Reich., Troch., Enum., 1855, p. 4.

*Thalurania eryphile*, Elliot. Syn. Hum. Bird, 1879. p. 101.

*Green-crowned Wood-Nymph*, Gould, Mon. Troch., vol. ii.,  
p. 107.

*La Thaluranie eryphile*, Muls., Hist. Nat. Ois. Mou., 1876,  
t. iii., p. 68.

*La Thaluranie de Fanny*.

*Habitat*.—Ecuador and Columbia.

*Male*.—Exactly like the preceding species, excepting the metallic emerald green of throat, which extend over the breast as in *T. Columbica*, the color of the shoulder, abdomen, and flanks which is shining Prussian blue, with greenish reflections, especially in lower part of abdomen, and the undertail-coverts which are steel blue, fringed with gray. Bill black, feet flesh color.

Total length, 4in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside shining green. Throat and breast gray. Flanks and abdomen darkish gray, strongly washed with shining green feathers. Undertail-coverts white. Tail blue with white tips on outermost rectrices.

My specimens of this species were collected by Buckley in Ecuador. It is not common.

143. *THALURANIA HYPOCHLORA*, Gould, P.Z.S., 1870, p. 104.

*Citado Wood-Nymph*, Gould, Mon. Troch., Suppl. 1886,  
p. 38.

*La Thaluranie hypochlore*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii, p. 66.

*Habitat*.—Ecuador.

*Male*. Head and underside, metallic emerald-green. Upperside shining grass-green. Wing-coverts and shoulders metallic blue. Undertail-coverts white with dark blue in centre and tip. Tail steel-black. Wings bluish-black. Bill black. Feet flesh color.

Total length,  $3\frac{6}{8}$ in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside shining green. Throat, centre of breast, abdomen and undertail-coverts, pale gray, nearly white. Sides of breast and flanks bronzy-green. Median rectrices grass-green with bluish tips, lateral green at base, then deep blue tipped with white.

This is a very rare species. It was discovered by Buckley in Ecuador. I have only two very fine specimens of both sexes, collected at Chimbo, Ecuador, by Mr. J. de Silmiradzki, and offered to me by Count Berlepsch.

144. *THALURANIA WATERTONI*, Bourc., P.Z.S., 1847, p. 44.

*Polytmus watertoni*, Gray, Gen. Birds, vol. i., p. 108.

*Calligena whatertoni*, Reich., Troch., Enum., 1855, p. 3.

*Waterton's Wood-Nymph*, Gould, Mon. Troch., vol. 2, p. 103.

*La Thaluranie de Watterton*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii, p. 78.

*Habitat*.—Brazil, British Guiana?

*Male*.—Crown and nape greenish-bronze. Back in its entire length, shoulder, wing-coverts and flanks, metallic blue. Uppertail-coverts green washed with blue. Underside metallic grass-green. Undertail-coverts gray with green in centre. Tail steel-blue. Wings purplish-black. Bill black.

Total length, 5in. Wing,  $2\frac{2}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside dark green. Underside gray.

This is a very rare species. I have only two males, which were found in a collection of Brazilian birds.

145. *THALURANIA FURCATA*, Gmel. Syst. Nat., 1788, vol. i., p. 486.

*Ornismya furcata*, Less., Hist., Nat. Ois. Mou., 1829, p. 82.

*Polytmus furcatus*, Gray, Gen. Birds, vol. i., p. 108.

*Coeligena gyrinno*, Reich., Enum., p. 3.

*Thalurania furcatoides*, Gould, Intr. Troch., p. 357.

*Cayenne Wood-Nymph*, Gould, Mon. Troch., vol. ii., p. 101.

*Para Wood-Nymph*, Gould, Mon. Troch., Suppl., 1886, p. 35.

*La Thaluranie à queue fourchue*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 72.

*Habitat*.—Guiana and Upper Amazons.

*Male*.—Head dull green, black in certain lights. Upper part of back, breast and abdomen brilliant purple, sometimes brilliant blue with purplish reflections. Rest of back grass-green. Uppertail-coverts bronzy-green. Tail blue-black. Throat luminous grass-green. Wings purplish-black. Bill black.

Total length, 4in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside grass-green, bronzy on the head. Underside grayish-white. Median rectrices green, lateral gray at base, then bluish-black, tipped white.

Total length,  $3\frac{1}{2}$ in. Wing,  $1\frac{7}{8}$ . Tail  $1\frac{2}{8}$ . Culmen  $\frac{6}{8}$ .

Rather abundant in Guiana and Upper Amazons. I have put *T. furcatoides* as a synonym, as I cannot see in what they differ.

146. *THALURANIA REFULGENS*, Gould, P.Z.S., 1852, p. 9.

*Refulgent Wood-Nymph*, Gould, Mon. Troch., vol. 2, p. 102.

*La Thaluranie resplendissante*.

*Habitat*.—Trinidad?

*Male*.—Exactly the same as the preceding species, but slightly larger, especially the tail, which is deeply forked. Some are brilliant purple, others are purplish-blue. Wing-coverts metallic purplish-blue.

Total length,  $4\frac{2}{8}$ in. Wing,  $2\frac{1}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside grass-green, bronzy on head. Central rectrices bronze-green with black tips, lateral pale bronze at base, then bluish-black, tipped white.

Total length,  $3\frac{6}{8}$ in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

Type of female in my collection.

I have received many specimens of this species, said to come from Trinidad; but I am doubtful about the locality.

147. *THALURANIA NIGROFASCIATA*, Gould., P.Z.S., 1846, p. 89.

*Polytmus nigrofasciatus*, Gray, Gen. Birds, vol. i., p. 108.

*Saucerottia viridipectus*, Reich., Aufz. der Col., 1853, p. 7.

*Coeligena nigrofasciata*, Reich., Troch., Enum., 1855, p. 3.

*Thalurania tschudii*, Gould, P.Z.S., 1860, p. 312.

*Thalurania Felskii*, Tacz. P.Z.S., 1874, p. 138.

*Black banded Wood Nymph*, Gould, Mon. Troch., vol. ii., p. 103.

*Tschudi's Wood Nymph*, Gould, Mon. Troch., vol. ii. p. 103.

*La Thaluranie à bande noire*, Muls., Hist. Nat. Ois, Mou., 1876, vol. iii., p. 75.

*Felsky's Wood Nymph*, Gould, Mon. Troch, Suppl., 1886, p. 39.

*Habitat*.—Peru, Columbia, and Ecuador.

*Male*.—Head and neck bronze, rest of upperside shining green. Throat emerald-green, extending to the breast, bordered by a narrow black band. Shoulders and rest of underside Prussian blue, under tail-coverts and tail steel-blue. Wing-coverts bronze-green. Wings purple-brown. Bill and feet black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside shining grass-green, bronzy on the head. Underside gray. Median rectrices green, lateral green with bluish tips and a very small gray tip, the two uttermost ones brown at base, then bluish with gray tips.

I have some specimens from Columbia, Ecuador, Amazons, and Peru, collected by Messrs. Buckley, Whitely, and Hanxwell.

#### 148. THALURANIA BOLIVIANA, N. Sp.

*Bolivian Wood Nymph*.

*La Thaluranie de Bolivie*.

*Habitat*.—Bolivia.

*Male*.—Exactly the same in colouration as the preceding species, except that the emerald of the throat does not extend so much on the breast, and is not separated from the breast by a black band. The colour of the breast and abdomen is purplish in this species.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Like the preceding species, but darker on the underside.

My specimens of this new species, were collected in Bolivia by Buckley.



GENUS XLIX. *Gmelinius*, n.g.

ORNISMYIA, Lesson, Hist. Nat., Ois. Mou., Tab. 10.

TYPE: *T. bicolor*, Gmélin.

Bill straight, graduating to a point, slightly longer than the head. Tail slightly forked. Rectrices gradually longer from the medium to the outermost ones, pointed. Wings long, reaching the end of tail. Tarsi clothed. Sexes unlike.

*Habitat*.—Dominica (West Indies).

I dedicate this new genus to the memory of Gmélin.

149. GMELINIUS, BICOLOR, Gmel. Syst. Nat., 1788, p. 496.

*Ornismyia bicolor*, Gmel. Syst. Nat., 1778, p. 496.

*Ornismyia wagleri*, Less., Hist. des Ois. Mou., 1829, p. 203.

*Hylocharis wagleri*, Gray, Gen. Birds, vol. i., p. 114.

*Caeligena wagleri*, Riech., Troch. Enum., 1855, p. 3.

*Thalurania wagleri*, Gould, Mon. Troch., vol. ii., p. 109.

*Wagler's Wood Nymph*, Gould, Mon. Troch., vol. ii., p. 109.

*La Thaluranie de Wagler*, Muls., His. Nat. Ois. Mou., 1876, t. iii, p. 81.

*Habitat*.—Dominica (West Indies) not Brazil.

*Male*.—Entire head and throat deep blue, slightly metallic. Upperside dark shining green. Tail steel-blue. Tail-coverts greenish-blue. Underside metallic grass-green, golden on sides of breast and flanks. Wings dark purplish-brown. Maxilla black. Mandible flesh colour tipped with black.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*. — Upperside bronzy-green. Uppertail-coverts bluish-green. Underside dull white spangled, with green on the sides of breast and flanks. Outer-tail feathers tipped white, rest of tail-feathers green, broadly marked with blue on the terminal part.

It is a rare species, and it is only since a short time that we know with certainty that this species is not Brazilian, as all former authors have constantly told us, but a native of Dominica, West Indies. I think Mr. Ober, who has collected largely in the West Indies, is the naturalist to whom we are indebted for the exact habitat of this species.

The differences between this species and all those included amongst the genus *Thalurania*, are such, that I have not hesitated in proposing a new genus for it.

GENUS L. **Phaeoptila**, Gould, Int. Troch., 1861, p. 169.

DOLEROMYIA, Muls., Hist. Nat. Ois. Mou., t. i, p. 207.

TYPE: *P. sordida*, Gould.

Bill longer than the head, slightly curved, nostrils exposed, wings long, nearly reaching the end of tail. Tail short, slightly forked, medium rectrices shorter, lateral and outermost ones, slightly and gradually longer, all of them broad. Tarsi clothed. Sexes unadorned, nearly alike.

*Habitat*.—Mexico.

150. PHAEOPTILA SORDIDA, Gould, Ann. Mag. Nat. Hist., 1859, p. 97.

*Uranomitra sordida*, Cab. and Heine., Mus. Hein, 1860, t. iii., p. 41.

*Doleromyia sordida*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 207.

*Dusky Humming-bird*, Gould, Mon. Troch., vol. 5, p. 338.

*La Doleromye sordide*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 207.

*Habitat*.—Puebla, Oaxaca, (Mexico).

*Male*.—Upperside bronzy-green, brownish on forehead. Underside gray, washed with bronzy-green feathers on sides of breast and flanks. A tuft of white feathers on each side of lower part of vent. A white spot behind the eyes. Tail bronzy-gray. Wings silky-brown. Bill flesh colour, with black tips. Feet black.

Total length, 4in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Same plumage as that of male, but paler gray on underside, with just a few bronzy-green feathers on sides of breast. Lateral rectrices largely tipped with pale gray.

I discovered this species in Oaxaca, South Mexico, and for a long time, Gould himself thought that it was the female of another species; but having dissected a good many specimens of both sexes, there is no doubt about it now. The types of this species are now in the British Museum. (Ex Gould Collection.)

GENUS LI. **Iache**, Elliot, Syn. Hum. Birds, p. 234.

CIRCE, Gould, Int. Troch., p. 168.

TYPE: *C. latirostris*, Swainson.

Bill longer than the head slightly curved. White spot behind the eyes. Wings long, reaching nearly the end of tail. Tail short, slightly forked, rectrices broad. Tarsi clothed. Feet small, hind toe short (Gould, l.c.). Sexes unlike.

*Habitat*.—Mexico.

151. IACHE LATIROSTRIS, Sw., Phil. Magas, 1827, p. 441.

*Ornismya lessoni*, Del., Rev. Zool., 1839, p. 15.

*Cyanophaia lazula*, Reich., Aufz. der Col., 1853, p. 10.

*Amazilia latirostris*, Reich., Aufz. der Col., 1853, p. 10.

*Hylocharis lazula*, Reich., Troch., Enum., 1855, p. 770.

*Circe latirostris*, Gould, Mon. Troch., vol. v., p. 338.

*Circe*, Gould, Mon. Troch., vol. v., page 338.

*La Circé, à large bec*, Muls., His. Nat. Ois. Mou., 1875 t. ii, p. 47.

*Habitat*.—Mexico.

*Male*.—Upperside bronzy-green, brownish on top of head. Throat bright sapphire-blue. Breast, abdomen and flanks shining green, washed with gray on flanks. Undertail coverts gray, with bronzy-green in centre of feathers. Tail steel blue, tipped with gray in young males. Wings pale brown. Bill flesh colour with black tips.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside bronzy-green. Underside dark gray. Tail bronzy-green at base, rest bluish-black, lateral feathers tipped with gray.

Rather a rare species. I collected some specimens near Mexico, the capital of the Republic.

\*152. IACHE MAGICA, Muls., and Verr., Ann. Soc. Lin. Lyon., 1872, t. 18, p. 110.

*Circe magica*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii, p. 49.

*La Circé magicienne*, Muls., Hist. Nat. Ois. M., 1875, t. ii, p. 50.

*Mazatlan Humming-bird*, Gould, Mon. Troch., Suppl., 1886, p. 96.

*Habitat*.—Mazatlan, Lower-California.

*Male*.—Upperside reddish-bronze. Throat and upperpart of breast metallic bluish-green. Underside bronzy-green, with a coppery lustre. Undertail-coverts white. Wings pale brown. Tail brownish-black, lateral feathers slightly tipped with gray. Bill red, tip black.

Total length,  $3\frac{3}{4}$  in. Wing,  $1\frac{2}{5}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{3}{4}$ .

The Type (from Elliot's collection) is now the property of the Museum of Natural History, New York.

\*153. IACHE DOUBLEDAYI, Bourcier P.Z.S., 1847, p. 46.

*Hylocharis doubledayi*, Gray, Gen. Birds, vol. i., p. 114.

*Thaumatias doubledayi*, Bon. Consp. Gen. Av., 1850, vol. i., p. 78.

*Cyanophaia doubledayi*, Reich., Aufz. der Col., 1853, p. 10.

*Sapphironia circe*, Bon. Rev. and Mag. Zool, 1814, p. 156.

*Circe doubledayi*, Gould, Mon. Troch., vol. v., p. 339.

*Doubleday's Humming Bird*, Gould, Mon. Troch., vol. v., p. 339.

*La Circé de Doubleday*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 45.

*Habitat*.—Chihuitan (S. Mexico).

*Male*.—Top of head metallic bluish-green. Upperside and abdomen dark bronzy-green with a bluish shade on the abdomen. Throat brilliant blue. Undertail-coverts dark brown, edged with gray. Wings pale brown. Tail steel-blue tipped with gray. Bill red, tip black.

Total length,  $3\frac{3}{16}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{5}{16}$ . Culmen,  $\frac{11}{16}$ .

Bourcier's specimen is in Elliot's collection.

\*154. IACHE NITIDA, Salv. and Godm. Ibis., 1889, p. 240.

*Dark blue Humming-bird*.

*l'Oiseau mouche bleu foncé*.

*Habitat*.—Guerrero (Mexico).

*Male*.—Closely allied to *I. doubledayi*, but the whole throat

and breast are of a richer blue, and the head also is shining blue, not green.

The type of this fine species is in the collection of Mrs. H. H. Smith.

\*155. IACHE LAWRENCEI, Ridgw, Mon. N.A. Birds., p. 320.

*Iache Lawrencei*, Berlepsch, M.S.

*Lawrence's Humming-bird*.

*L'Oiseau mouche de Lawrence*.

*Habitat*.—Tehuantepec, (S. Mexico).

*Male*.—Above metallic bronze-green, including upper tail-coverts, the hind neck more grass-green, and the forehead brilliant metallic greenish-blue, passing into shining green on crown; entire chin and throat deep metallic blue with a purplish cast in certain lights; remaining under parts bronzy-green or greenish-bronze. Tail forked.

Length of wing, 1-90. Tail, 1-50, Culmen, 0-65.

This genus forms the natural passage, from THALURANIDÆ to CHLOROLAMPIDÆ.

With the genus *Phaeoptila*, I have placed both in this family, because they are very closely allied to my new genus GMELINIUS.

## FAMILY VII. CHLOROLAMPIDÆ.

### OR FAMILY OF EMERALDS.

Bill flesh colour with black tips, as in genus *Chlorolampis*, gradually passing to black, as in the genera *Prasitis* and *Panychlora*, about the same length as the head, straight, rather wide at base, and terminating to a sharp point. Body small. Wing long and narrow. Tail varying from very deeply forked to even, rectrices rounded in some genera, narrow and pointed in others. Sexes unlike; the underside of males are always brilliantly coloured; that of the females dull whitish-gray. Tarsi clothed.

TYPE CHLOROLAMPIS, Cabanis, Mus. Hein., 1860. t. iii. p. 47

GENUS LII., **Chlorolampis**, Cab., Mus. Heine, 1860, t. iii.,  
p. 47.

TYPE: *Trochilus auriceps*, Gould.

Bill about as long as the head, straight, rather wide at base, and terminating to a sharp point. Wings long. Tail long and forked, two of the median rectrices very short and even, the next one, one-third longer, the two outermost ones narrow and long, the last one twice as long as the median rectrices, all of them being semi-rounded at the points. Feet small. Tarsi clothed. Sexes unlike.

*Habitat*.—Mexico.

156. CHLOROLAMPIS AURICEPS, Gould, Jard, Contr., Orn.,  
1852, p. 137.

*Sporadinus auriceps*, Bon., Rev. and Mag. Zool, 1854, p.  
223.

*Chlorostilbon auriceps*, Gould, Mon. Troch, vol. v., p. 350.

*Long-Tailed Emerald*, Gould, Mon. Troch, vol. v., p. 350.

*Le Chlorolampe à tête d'or*, Muls. Hist. Nat. Ois. Mou.,  
1875, to ii, p. 80.

*Habitat*.—Mexico.

*Male*.—Crown metallic golden. Upperside golden-green. Throat metallic yellowish-green. Breast and abdomen metallic golden. Vent white. Wings purplish-brown. Tail long, deeply forked, bluish-black, all but the outermost feathers tipped with large gray spots. Maxilla flesh colour at base, rest black. Mandible flesh colour with black tip.

Total length,  $3\frac{3}{4}$  in. Wing,  $1\frac{3}{4}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy-green. Underside dull gray. Median rectrices shining green; lateral green at base, then black with gray tips, outermost ones green at base, then gray, then black with grayish tips.

This very rare species was discovered by Mr. Flores d' Arcais.

I have only one male specimen, Ex Coll Costa de Beauregard.

157. CHLOROLAMPIS FORFICATA, Ridgw. Pr. U.S., Nat. Mus.  
vol. viii., p. 574.

*Forked Tail Emerald*.



*Le Chlorolampe à quene fourchue.*

*Habitat.*—Yucatan, Mexico.

*Male.*—Crown of head golden. Upperside bronze-green. Underside bright metallic green. Wings purplish-brown. Tail steel-blue with a broad bluish-gray spot at tips of the four central rectrices. Vent white. Bill flesh colour with black tips.

Total length,  $3\frac{3}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female.*—Upperside shining green with bronzy reflections, especially on the head. Underside gray with green feathers on sides of breast and on flanks. Vent white. Wings bluish-black. Median rectrices green at base, rest steel-blue, lateral green at base, then steel-blue with grayish tips, outermost bluish-black, with gray in the middle internally, and a large white tip.

Total length,  $3\frac{1}{2}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{1}{2}$ .

My specimens were collected by Mr. Gaumer in Yucatan.

158. CHLOROLAMPIS CANIVETI, Less. Ois. Mouch, 1829, pp. 174-177.

*Hylocharis caniveti*, Gray, Gen., Birds, vol. i. p. 114.

*Thaumatias caniveti*, Bon., Consp., Gen., Av., 1850, vol. i., p. 78.

*Riccordia caniveti*, Reich. Aufz. der Colib., 1853, p. 8.

*Sporadinus caniveti*, Bon. Rev. and Mag. Zool., 1854, p. 224.

*Chlorestes caniveti*, Reich., Troch., Enum, 1855, p. 4.

*Chlorolampis caniveti*, Cab. and Hein., Mus. Hein., t. iii., p. 47.

*Canivet's Emerald*, Gould, Mon. Troch., vol. v. p. 351.

*Le Chlorolampe do Canivet*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 82.

*Habitat.*—Mexico.

*Male.*—Crown metallic gold. Upperside bronzy-green. Underside metallic golden-green, with greenish reflections on throat and breast. Wings, purplish-brown. Tail, bluish-black. All the feathers with grayish tips, but more conspicuous on the three median. Maxilla flesh colour for half its length, rest black. Mandible flesh colour with black tips.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Upperside bronzy-green, greenish on upper tail-coverts. Underside gray, tinged with bronze feathers on sides of breast and flanks. Middle pair of rectrices bronze-green, the next three green at base, then steel-blue with white tips, the outermost black at base, then gray with a large subterminal bluish-black bar, and white tips. Ear-coverts black. A narrow line of whitish-gray behind the eye.

This pretty species is common in Mexico. I have killed many specimens at Tospam, near Cordoba. It was discovered by Delattre, and dedicated by Lesson to Mr. Canivet, a French naturalist.

159. CHLOROLAMPIS OSBERTI, Gould, Int. Troch., 1861,  
p. 174

*Osbert's Emerald*, Gould, Mon. Troch., vol. v., p. 352.

*Le Chlorolampe d'Osbert*.

*Habitat*.—Guatemala, Nicaragua.

The only difference between this species and the preceding one, consists in the colour of the underside, which is metallic emerald-green on the throat and breast, and the colour of its rectrices which are steel-blue with a narrow bronze tip on central feathers, the tail is also shorter.

Total length,  $3\frac{3}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

I have one specimen from Bourcier, collected by Delattre in Nicaragua, labelled *Clorestes adusta*, which is precisely alike.

160. CHLOROLAMPIS SALVINI, Cab. and Hein., Mus. Hein.,  
1860, t. 111, p. 48.

*Salvin's Emerald*.

*Le Chlorolampe de Salvin*.

*Habitat*.—Costa Rica.

*Male*.—Crown golden. Upperside golden-green. Underside metallic emerald-green. Wings purple-brown. Tail steel-blue with a narrow bronze band at tips of central feathers. Maxilla black. Mandible flesh colour for two-thirds of its length, rest black.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Exactly like the female of *C. caniveti*, excepting the mandible which is flesh colour at base only, the rest black, and the tips of rectrices, which are slightly more rounded.

The specimens which I have of this species were collected by me at San José, Costa Rica, which lays on the Atlantic slope. I think the great difference in the colouring of the underside and bill entitles it to be considered as a species.

GENUS LIII. **Sporadinus**, Bon., Rev. and Mag. Zool, 1854, p. 255.

RICORDIA, Reich., Aufz. der Col., 1853, p. 10.

SPORADICUS, Cab. et Hein., Mus. Hein., 1860, t. iii., p. 25.

ERASMIA, Heine, Journ. fur Ornith, 1863, p. 91.

MARSYAS, Muls., Cat. Ois. Mou., 1875, p. 13.

TYPE: *S. ricordi*, Gervais.

Bill as long as the head, straight. Nostrils naked. Wings long, reaching near the end of the tail. Tail long, deeply forked, tips of rectrices semi-rounded. Throat metallic. Tarsi partly clothed. Sexes unlike.

*Habitat*.—West Indiae Islands.

161. SPORADINUS RICORDI, Gerv. Rev. and Mag. Zool, 1835, pl., 40-42.

*Ornismya parzudaki*, Less., Rev. Zool, 1838, p. 315.

*Orthorhynchus ricordi*, Della, Sagra. Hist. Cuba, 1840, p. 128.

*Hylocharis ricordi*, Gray. Gen. Birds, vol. i., p. 114.

*Ricordia raimondi*, Reich., Aufz. der Col., 1853, p. 8.

*Chlorestes raimondi*, Reich. Troch. Enum., 1855, p. 4.

*Sporadicus ricordi*, Cab. and Hein., Mus. Hein., 1860, t. iii. p. 25.

*Sporadinus bracei*, Lawr, Ann. N.Y. Acad. Scien, 1877, p. 50.

*Ricord's Humming-bird*, Gould, Mon. Troch., vol. v., p. 348.

*Le Sporadin de Ricord*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 75.

*Habitat*.—Cuba and Bahamas.

*Male*.—Upperside bronzy-green. Underside metallic, emerald-green, bronzy on flanks and abdomen. Wings purplish-brown. Median rectrices bronze, lateral purplish-

black, with bronze on outer webs. Undertail-coverts white. Maxilla black. Mandible flesh colour with black tip. In one specimen, collected by Mr. Gaumer in Cuba, the mandible has only the base flesh colour.

Total length,  $3\frac{7}{8}$  in. Wing, 2. Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronze-green. Underside grayish white, washed with green on side of breast and flanks, the outermost rectrices have bronze tips.

Same size as male.

This species was discovered by Mr. Alexandre Ricord, and it was dedicated to him by Mr. Gervais. It is rare in the collections.

162. SPORADINUS ELEGANS, Vieill, Ois. Dor., 1802, vol. i., p. 32.

*Ornismya swainsoni*, Less., Ois., Mou., 1829, p. 197.

*Trochilus swainsoni*, Nat. Lib. Hum. Birds, 1833, vol. ii., p. 132.

*Hylocharis elegans*, Gray, Gen. Birds, 1844-49, vol. i., p. 114.

*Lampornis elegans*, Bon. Consp., Gen. Av., 1850, vol. i., p. 72.

*Ricordia elegans*, Reich., Aufz. der Col., 1853, p. 8.

*Chlorestes elegans*, Reich., Troch. Enum., 1855, p. 4.

*Sporadicus elegans*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 25.

*Sto. Domingo Humming-bird*, Gould, Mon. Troch., vol. v., p. 347.

*Le Sporadin élégant*, Muls., Hist. Nat. Ois. Mou., vol. ii., p. 72.

*Habitat*.—Haiti and San Domingo.

*Male*.—Upperside bronze-green. Throat bright metallic green. Centre of breast black. Rest of underside shining dark green. Wings purplish-brown. Tail dark brown, with a bronze lustre on tips. Maxilla black. Mandible flesh colour with black tip.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside bronze-green, grayish on head. Underside brownish-gray. Central tail feathers bronze-green, rest

gray, with subterminal black bars, some of the feathers glossed with green.

I have only one male specimen of this very rare species. Ex Costa de Beauregard's collection.

\*163. SPORADINUS MAUGEI, Vieill., Dict. Hist. Nat., 1817, t. vii., p. 568.

*Ornismyia maugei*, Less. Ois. Mou., 1829, p. 194.

*Thaumatias ourissia*, Bp. Conspectus, Gen. Av., 1850, p. 79.

*Trochilus maugei*, Sund. Oefv. K. Vet. Akad. För., 1869, p. 600.

*Chorestes gertrudis*, Gundl. Journ. für Ornith., 1874, p. 315.

*Marsyas maugei*, Muls., Cat. Ois. Mou., 1875, p. 13.

*Chlorolampis maugeus*, Gundl., Ann. Soc. Esp. Hist. Nat., 1878, t. vii., p. 225.

*Maugé's Humming Bird*, Gould, Mon. Troch., vol. v., p. 349.

*Le Sporadin de Maugé*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 78.

*Habitat*.—Porto Rico.

*Male*.—Entire plumage bright green, the feathers showing a golden tinge when held in the light. Throat dark blue, golden-green in some lights. Tail dark blue. Wings dark brown.

*Female*.—Underpart dull white, the central feathers of the tail green, the rest grayish-green with a band of blue near the tip, outer feathers tipped with grayish white.

Length, 3.35. Wing, 2. Tail, 1.25. Bill, .55.

The above descriptions were taken from the fine work, *Birds of the West Indies*, by Cory, 1889, p. 154.

It is a very rare species and one of my desiderata.

It was discovered at Porto Rico by Mr. Maugé, and dedicated to him, by Vieillot. The types are in the Paris Museum.

Mr. Mulsant in his work, Hist. Nat. des Ois. Mouches, has described a fourth species under the name of *S. incertus*; but it is the same as *S. elegans*.

GENUS LIV. **Chlorostilbon**, Gould, Int. Troch., 1861, p. 175.

CHLORESTES, Reich., Aufz. der Colib., 1853, p. 10.

CHLOROLAMPIS, Cab. and Hein., Mus., Hein., 1860, t. iii., p. 47.

MERION, Muls., Hist. Nat. Ois. Mou., 1875, t. iii. p. 92.

TYPE.—*T. pucherani*, Bourcier.

Bill about the length of the head, straight, rather broad and flat at base, terminating in a sharp point, flesh colour, with black tips, or all black. Wings long, reaching nearly the end of tail. Tail forked. Feet small. Tarsi clothed. Sexes unlike.

*Habitat*.—Mexico, to Argentine Republic.

164. CHLOROSTILBON PUCHERANI, Bourc and Muls., Rev. Zool., 1848, p. 271.

*Trochilus nitidissimus*, Licht, Mus. Bérol.

*Hylocharis pucherani*, Bp., Rev. and Mag. Zool., 1854, p. 255.

*Chlorestes pucherani*, Reich., Aufz. der Col., 1853, p. 7.

*Chlorostilbon igneus*, Gould, Int. Troch., p. 176.

*Chlorostilbon insularis*, Lawr. Ann. Lyc., N.Y., t. 7, p. 457.

*Hylocharis flavifrons*, Pelz, Orn. Bras., p. 33.

*Chlorostilbon bicolor*, Reich., Videusk, Medd. For. Kjob., 1870, p. 113.

*Chlorostilbon prasinus*, Gould, Mon. Troch., vol. v., p. 355.

*Brazilian Emerald*, Gould, Mon. Troch., vol. v., p. 355.

*Le Chlorostilbon de Pucheran*.

*Habitat*.—South Eastern Brazil.

*Male*.—Crown golden-green. Upperside dark shining green. Throat metallic bluish-green. Underside metallic golden-green. Wings purple-brown. Tail blue-black. Bill red at base, with black tip.

Total length,  $3\frac{3}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{7}{16}$ .

*Female*.—Upperside bronzy-green. Underside gray, tinged with bronze feathers on sides of breast and flanks. Median rectrices shining green, lateral bluish-black, with white tips. Same size as male.



This species was dedicated by Mess. Bourcier and Mulsant to Doctor Pucheran.

It is abundant in Brazil.

165. CHLOROSTILBON WIEDI, N. Sp.

*Wied's Emerald.*

*l'Emeraude de Wied.*

*Habitat.*—Brazil.

*Male.*—Crown metallic-gold. Upperside golden-green. Throat metallic emerald-green. Breast, abdomen, flanks, and undertail-coverts metallic golden-green. Wings purplish-brown. Tail steel-blue. Maxilla, half of it, flesh colour, rest black. Mandible flesh colour with black tip.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{7}{16}$ .

*Female.*—Exactly like the preceding species.

I have several specimens of this new species, collected in Brazil, by Delattre, with the name of Wiedi on the label, so I thought very appropriate to keep it, in memory of Prince Maximilian de Wied.

\*166. CHLOROSTILBON EGREGIUS, Heine, Journ. fur Ornith, 1863, p. 198.

*Hylocharis bicolor*, Burm., S.Ueb., ii, p. 343.

*Hylocharis flavifrons*, Pelz., Orn. Bras. p. 33.

*Trochilus audeberti*, Var, Wied, Beitr. Nat. Gesch. Bras. t. iv., p. 69.

*Taquara's Emerald.*

*L'Emeraude de Taquara.*

*Habitat.*—Taquara, Brazil.

Intermedius quasi statura rostrique longitudine ac vigore inter *C. phaethontem*, et *C. pucherani*; hoc vero omnino similior splendore smaragdineo-virente potius quam flavido-aurescente, gutture splendidissime secundum quandam solis lucem in colorem sapphirino-smaragdineum nonnihil vergente.

Long tot., 3 " 7 "" , al, 1 "  $9\frac{1}{2}$  "" . caud, 1 " 3 "" . Culm., 8 "" .

Type in Berlin Museum.

167. *CHLOROSTILBON SPLENDIDUS*, Vieill., Dict. Hist. Nat., 1817, t. vii., p. 361.

*Ornismya aureiventris*, D'Orb and Laf., Syn. Av. 1838, t. ii, p. 28.

*Trochilus phæton*, Bourc. Rev. Zool., 1848, p. 274.

*Clorestes phæton*, Reich., Aufz. der Colib., 1853, p. 7.

*Hylocharis phæton*, Bon. Rev. and Mag., Zool., 1854, p. 255.

*Chlorolampis phæthon*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 48.

*Glittering Emerald*, Gould, Mon. Troch. vol. v., p. 354.

*Le Chlorostilbon splendide*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 94.

*Habitat*.—Bolivia and Argentine Republic.

*Male*.—Upperside golden-green. Throat metallic emerald green. Breast and abdomen metallic golden-green, greenish on breast. Undertail-coverts, black at base, then shining green. Wings purplish-brown. Tail steel-blue. Maxilla flesh colour for half its length, rest black. Mandible flesh colour, with black tip. A tuft of white feathers beneath the vent.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Upperside bronze-green. Underside gray. Flanks bronzy. Tail bluish-black, two lateral feathers tipped with grayish-white.

I have several specimens of this rare species collected by Mess. Buckley in Bolivia, Flamand at Corrientes, Argentine Republic, and Laglaize at San Salvador, High Paraguay.

168. *CHLOROSTILBON CHRYSOGASTER*, Bourc, Rev. Zool., 1843, p. 101.

*Hylocharis chrysogaster*, Bon. Consp., Gen. Av., 1850, vol. i., p. 74.

*Chlorestes chrysogastra*, Reich., Aufz. der Colib., 1853, p. 7.

*Chlorolampis haeberlini*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 48.

*Chlorostilbon nitens*, Lawr, Ann. N.Y. Lye. Nat. Hist., 1861, p. 305.

*Ruddy-Breasted Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 98.

*Le Chlorostilbon de la Colombie.*

*Habitat*.—Columbia, Panama.

*Male*.—Crown metallic golden-green. Upperside dark golden-green. Underside metallic emerald-green, golden on flank, abdomen, and undertail-coverts. Wing purplish-blue. Tail steel-blue, deeply forked. Maxilla black. Mandible flesh colour, with black tip. A tuft of white feathers on lower part of vent.

This species was discovered at Sta Marta, Columbia, by Delattre.

Type of Bourcier in my Collection.

169. CHLOROSTILBON INESPECTATA, Berlespch Ornith. Centralbl, 1879, p. 63.

*Panychlora inexpectata*, Berl. Ornith. Centralbl, 1879, p. 63.

*Unexpected Emerald.*

*Le Chlorostilbon inattendu.*

*Habitat*.—Bogota, Columbia.

*P. haeberlini* Cab. and Hein., subsimilis, mandibulae basi (eodem modo), carnea, differt rectricibus omnibus obscure (sed splendide) viridibus (nec chalybeis), canda minus quam in *P. haeberlini* furcata, rostro longiore, fronte prasino-viridi.

Long lat, 74.5, cauda, 27, ala, 47.5, rostro, 17.75.

170. CHLOROSTILBON SPECIOSUS, Boicard, Hum. Bird, 1892, p. 79.

*Precious Emerald.*

*Le Chlorastilbon précieux.*

*Habitat*.—Columbia.

*Male*.—Upperside dark olive-green. Tail steel-blue. Wings purplish-brown. Underside, including tail-coverts, shining olive-green. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{1}{8}$  in. Wing, 2. Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Unknown, but probably like the preceding species.

TYPE: Unique in my collection.

171. CHLOROSTILBON ANGUSTIPENNIS, Fraz., P.Z.S., 1840,  
p. 18.

*Hylocharis angustipennis*, Gray, Gen. Birds, vol. i., p. 114.  
p. 75.

*Chrysuronia phæopyga*, Bon. Consp. Gen. Av., 1850, vol. i.,  
*Prasites phæopyga*, Cab. and Hein., Mus. Hein., 1860, t.  
iii., p. 47.

*Chrysomirus angustipennis*, Muls., Hist. Nat. Ois. Mou.,  
1875, t. ii., p. 102.

*Columbian Emerald*, Gould, Mon. Troch., vol. v., p. 353.

*Le Chrysomire angustipenne*, Muls., Hist. Nat. Ois. Mou.,  
1875, t. 11, p. 103.

*Habitat*.—Columbia.

*Male*.—Upperside golden-green. Throat metallic emerald  
green, sometimes golden. Undertail-coverts shining grass-  
green. Wings purplish-blue. Tail blue-black, deeply  
forked. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{3}{8}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Upperside bronzy-green, greener on upper tail-  
coverts. Underside gray washed, with green on flanks.  
Median rectrices green at base, rest blue-black, lateral green  
at base, then blue-black tipped gray, external one gray at  
base, then crossed by a broad steel-blue band, and tipped  
gray. Maxilla black. Mandible flesh colour at base, the rest  
black.

Common in Columbia.

172. CHLOROSTILBON MELANORHYNCHUS, Gould, P.Z.S., 1860,  
p. 308.

*Chlorostilbon comptus*, Berlepsch, Ibis, 1887, p. 296.

*Golden Green Emerald*.

*Emeraude vert-doré*.

*Habitat*.—Ecuador and Columbia.

*Male*.—Crown metallic-golden. Upperside shining bronze-  
green. Throat and upper part of breast metallic emerald-  
green. Rest of underside golden-green. A tuft of white  
feathers on each side of lower part of vent. Tail steel-blue,  
deeply forked. Rectrices narrow. Wings purplish-brown.  
Bill black.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronze-green, duller on head. Undertail-coverts shining green. Underside whitish-gray, speckled with bronze-green on sides of breast and flanks. Median rectrices green, with bluish tips, lateral green at base, then steel-blue with white tips. Bill black.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{11}{16}$ .

I have not been able to see any difference between the specimens which I have from Columbia, collected at Antioquia, Columbia, by Mr. Salmon, and those collected by Buckley at Ecuador. Therefore I think that *Chlorostilbon melanorhynchus*, *comptus*, Berlepsch is not a valid species.

173. CHLOROSTILBON ASSIMILIS, Lawr., Ann., N.Y., Lyc. Nat. His., 1860, p. 292.

*Chlorolampis assimilis*, Heine., Journ. fur Ornith., 1863, p. 202.

*Veragua Emerald.*

*Emeraude de Veragua.*

*Habitat*.—Veragua and Colon (Panama).

*Male*.—Upperside shining golden-green. Throat metallic golden-green with greenish reflections, rest of underside metallic golden. Undertail-coverts shining green. Tail purple-blue. Wings purplish-black. Bill black. A tuft of white feathers under vent.

Total length,  $2\frac{3}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Like the preceding species, but much smaller.

This species is closely allied to the preceding, but much smaller, easily to be distinguished by the golden-reddish colour of the upperside, and the colour of its tail.

The specimens in my collection were collected by Arcé in Veragua, and by me at Colon.

I have another male specimen collected by me, at Panama in December, 1876, which is of the same size, with all the upperside shining green, and all the underside metallic emerald-green. I propose the name of *Chlorostilbon panamensis* for it, if it should prove new.

174. CHLOROSTILBON ATALA, Less, Hist. Nat. Troch., 1831, p. 118.

*Hylocharis atala*, Gray, Gen. Birds, 1844-49, vol. i., p. 115.

*Chlorostilbon atala*, Gould, Mon. Troch., vol. v., p. 356.

*Saucerottia atala*, Bon. Consp., Gen. Av., 1850, vol. i., p. 77.

*Chlorestes atala*, Reich., Troch., Enum., 1855, p. 4.

*Chlorostilbon caribaeus*, Lawr., Ann., N.Y., Lyc., Nat. Hist., vol. x., p. 2.

*Atala's Emerald*, Gould, Mon. Troch., vol. v., p. 356.

*Le Chrysomire atala*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 105.

*Habitat*.—Trinidad, Venezuela, and Columbia.

*Male*.—Crown metallic-golden. Upperside golden-green. Uppertail-coverts shining green. Underside metallic emerald-green, golden on flanks and abdomen. Wings purplish-brown. Tail steel-black. Bill black. White tuft of feathers on each side under the vent.

Total length,  $3\frac{1}{8}$  in. Wing,  $1\frac{1}{16}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside golden-green, brownish on head. Underside grayish-white, washed with a few green feathers on flanks. Median rectrices bluish-green, lateral bluish-green at base, then steel-blue with white tips. Bill black.

My Venezuelan specimens were collected, by Doctor Carlos Rojas, of Caracas.

## GENUS LV. *Smaragdochrysis*, Gould.

SMARAGDOCHRYISIS, Gould, Int. Troch., 1861, p. 180.

TYPE: *C. iridescens*, Gould.

Bill longer than the head, straight and slender. Wings small, primaries narrow and rigid. Tail of moderate size and deeply forked. Tarsi clothed. Feet small; hind toe and nail nearly as long as the middle one (Gould, loc. cit.)

*Habitat*.—Brazil.

\*175. SMARAGDOCHRYISIS IRIDESCENS, Gould, Mon. Troch., vol. v., p. 159.

*Iridescent Humming-bird*, Gould, Mon. Troch, vol. v., p. 359.

*L'Emeraude irisé*.



*Habitat*.—Novo-Friburgo (Brazil.)

*Male*.—? The whole of the body, including the upper and undertail-coverts, iridescent pale green, and light coppery red, most brilliant on the throat; the deeply-forked tail steely dark brown, each feather tipped with a more bronzy or purplish hue, which is seen only in certain lights; upper mandible and the tip of the lower one black, the remainder of the latter apparent reddish flesh-colour (Gould, loc. cit.)

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{9}{16}$ . Tail,  $1\frac{1}{4}$ . Bill,  $\frac{3}{4}$ .

*Female*.—Unknown.

It is a very rare species, and one of my desiderata. It has been discovered by Mr. Reeves, at Novo-Friburgo.

#### GENUS LVI. **Ptochoptera**, Elliot, Ibis, 1874, p. 261.

TYPE: *T. iolaema*, Pelzen.

Bill moderately long, straight, sharply pointed. Wings extremely short, a little over one-third the entire length of the bird. Tail long, deeply forked. Feathers narrow, outer ones curving slightly inwards. Tail-coverts very long, reaching to the fork of the tail. (Elliot, loc. cit.)

*Habitat*.—Brazil.

\*176. PTOCHOPTERA IOLAEMA, Reich, Aufz. der Col., 1853, p. 8.

*Thalurania iolaema*, Von Pelz., Ornith. Braz., p. 57.

*Natterer's Wood Nymph*, Gould, Mon. Troch. Suppl., p. 48.

*Le Ptochoptère à gorge verte*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 89.

*Habitat*.—Brazil.

*Male*.—Top of head and nape dull dark green, entire upper parts grass-green, only slightly metallic. The tail-coverts are a lighter green than the back, and reach to the fork of the tail. Throat pale metallic grass-green. Rest of underparts pale smoky-brown, with some of the flank feathers tipped with grass-green. Undertail-coverts long, same colour as the abdomen, with a slight metallic greenish lustre on the centre of feathers. Tail long, deeply forked, dark purplish-brown. Feathers very narrow. Wings purplish-brown. Bill and feet black.

Total length,  $4\frac{3}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail, 2. Culmen,  $\frac{3}{4}$ .

Female.—Unknown.

Type unique in the Vienna Zoological Museum.

It has been discovered by Mr. Natterer.

GENUS LVII. **Prasitis**, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 49.

TYPE: *O. prasina*, Lesson.

Bill slightly longer than the head, straight and acutely pointed, all black. Wings narrow and long. Tail short, very slightly forked or even. Rectrices wide. Feet small. Tarsi clothed. Sexes unlike.

*Habitat*.—Veragua, Panama, Columbia, Venezuela, Guiana, Trinidad, Ecuador and Peru.

177. PRASITIS PRASINA, Less, Ois. Mou., pp. 35 - 188, pl. 65.

*Hylocharis prasinus*, Bon. Consp. Gen. Av., 1850, vol. i., p. 74.

*Chlorestes prasina*, Reich., Aufz. der Col., 1853, p. 7.

*Prasitis prasina*, Cab. and Heine., Mus. Hein., 1860, t. iii., p. 49.

*Chlorostilbon prasinus*, Elliot, Ibis., 1875, p. 163.

*Chrysomirus prasinus*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 108.

*Chlorostilbon subfurcatus*, Salv. Berl., Ibis., 1887, p. 297.

*Guiana Emerald*.

*Le Chrysomire Orvert*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 109.

*Habitat*.—Guiana.

*Male*.—Crown metallic golden-green. Rest of upperside bronze-green. Uppertail-coverts green. Throat and upper part of breast, metallic emerald-green, with bluish hue. Abdomen and flanks metallic golden-green. Wings purplish-brown. Tail blue-black, nearly even. Bill black.

Total length,  $3\frac{1}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail, 1. Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside shining green, bronzy on head. Underside gray, washed with a few green feathers on sides of

breast and flanks. Tail steel-black, nearly even, lateral rectrices tipped with gray. Bill black.

Several of my specimens of this species were collected by Mr. H. Whitely, at Roraima, British Guiana.

I have placed *Chlorostilbon subfurcatus*, Berlepsch, as a synonym of *Prasitis prasinus*, because I have not been able to see any difference between the specimens from Cayenne and those of Roraima.

\*178. PRASITIS STUEBELI, Mey., Z., Gen. Ornith., 1884, p. 206.

*Stuebel's Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 99.

*l' Émeraude de Stuebel.*

*Habitat.*—Yungas, Bolivia.

*Male.*—Upper surface bronzy-green, head coppery; below golden-green, the breast bluish. Wings purplish-brown. Tail black, tinged with violet-purple. Bill black.

Total length,  $3\frac{3}{4}$  in. Wing,  $1\frac{9}{16}$ . Tail, 1. Culmen,  $\frac{7}{8}$ .

This species belongs to the genus *Prasitis*, on account of the form of its tail, which is slightly emarginated, the rectrices being rather broad. It resembles more *C. atala* than any other species.

This rare species was discovered in Bolivia, by Doctor Stüebel, and dedicated to him, by Doctor Adolf Meyer, of Dresden.

The type is at the Museum of Dresden.

179. PRASITIS DAPHNE, Bon. Rev. Zool., 1854, p. 255.

*Trochilus phaeopygos*, Tsch. Faun. Per., p. 247.

*Metallura phaeopygos*, Reich., Aufz. der Col., p. 8.

*Chlorostilbon napensis*, Gould, Intr. Troch., 1861, p. 177.

*Chlorostilbon peruanus*, Gould, Intr. Troch., 1861, p. 177.

*Chlorostilbon brevicaudatus*, Gould, Intr. Troch., 1861, p. 178.

*Peruvian Emerald.*

*l'Émeraude du Pérou.*

*Habitat.*—Trinidad, Guiana, Peru.

*Male.*—Upperside golden-green. Uppertail-coverts shining green. Throat metallic green, with bluish reflections. Breast, sides of neck, and abdomen metallic golden. A patch of

white on lower part of vent on each side. Rectrices steel-blue, short, of same length. Wings purplish-black. Bill black.

Total length, 3 in. Wing,  $1\frac{5}{8}$ . Tail,  $\frac{7}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside shining green. Throat and centre of abdomen gray. Rest of underside shining green. Ear coverts brownish-green. A spot of gray behind the eyes. Tail steel-blue, outermost rectrice tipped gray.

It is a rare species. My specimens were collected by Mr. Hauxwell at Nauta (Perou). I have some others, which I believe to be from Trinidad.

GENUS LVIII. **Panychlora**, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 49.

TYPE: *T. aliciae* Bourcier.

Bill as long as the head, straight. Feathers of forehead projecting on culmen. Nostrils hidden. Wings long, reaching the end of tail. Tail short, slightly forked. Rectrices narrow. Feet small. Tarsi partly clothed. Underside brilliantly coloured in males. Sexes unlike.

*Habitat*.—Venezuela and Columbia.

180. PANYCHLORA ALICIÆ, Boure. and Muls., Rev. Zool., 1848, p. 274.

*Chlorostilbon aliciae*, Bon. Rev. and Mag. Zool., 1854, p. 239.

*Smaragditis aliciae*, Reich., Aufz. der Col., 1853, p. 7.

*Chlorestes alice*, Reich., Troch., Enum., 1855, p. 4.

*Alice's Emerald*, Gould, Mon. Troch., vol. v., p. 357.

*Le Panychlore d'Alice*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 116.

*Habitat*.—Venezuela and Columbia.

*Male*.—Crown golden. Upperside shining golden-green. Underside metallic dark golden-green. Tail dark green with blackish reflections. Rectrices narrow, nearly even. Wings purplish brown. Bill black.

Total length,  $2\frac{7}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail, 1. Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy-green. Underside grayish-white. Median rectrices green, lateral green at base, then black, tipped with gray.

My specimens of this uncommon species were collected by my friend, Doctor Carlos Rojas, in Venezuela.

\*181. PANYCHLORA MICANS, Salv., Ann. and Mag., Nat. Hist., 1891, p. 375.

*Brillant Emerald.*

*le Panychlore brillant.*

*Habitat.*—?

*Male.*—Similar to that of *P. aliciae*, and about the same size. The whole plumage is of a rich reddish-golden hue, brighter and redder on the crown. The tail is very dark, and of more bronzy tint than in all the allied species; but the outer rectrices are distinctly green, and not coppery-bronze as in *P. russata*; moreover, the tail is slightly forked.

Possibly a variety of *P. aliciae*.

Unique in the British Museum, "Ex Gould Collection."

182. PANYCHLORA, EUCHLORIS, Reich., Aufz. der Col., 1853, pp. 7-23.

*Panychlora poortmani major*, Berlepsch, Journ. fur Ornith., 1884, p. 313.

*Panychlora aurata*, Cab. and Heine., Mus. Hein., vol. iii., p. 49.

*Golden Emerald*

*l'Emeraude doré.*

*Habitat.*—Columbia.

*Male.*—Crown metallic yellowish-green. Upperside bronze-green. Underside yellowish luminous green. A tuft of white feathers under vent, on each side. Tail shining bronze-green. Bill black, longer than in the preceding species. Wings purplish-brown.

Total length,  $3\frac{3}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail, 1. Culmen,  $\frac{6}{8}$ .

*Female.*—Exactly like the preceding species, with crown golden.

Common in Columbia.

183. PANYCHLORA POORTMANI, Bourcier, Rev. Zool, 1843, p. 2.

*Hylocharis poortmani*, Gray, Gen. Birds., vol. i., p. 115.

*Chlorestes poortmani*, Reich., Aufz. der Col., 1853, p. 7.

*Smaragdites esmeralda*, Reich., Aufz. der Col., 1853, p. 7.

*Panychlora maculicollis*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 49.

*Poortman's Emerald*. Gould, Mon. Troch., vol. v., p. 358.

*le Panychlore de Poortman*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 112.

*Habitat*.—Columbia.

*Male*.—Upperside shining green, metallic on crown. Underside metallic grass-green. A tuft of white feathers under vent, on each side. Tail slightly forked, bronzy-green. Wings purplish-brown. Bill black.

Total length,  $3\frac{1}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail, 1. Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside dull golden-green, with brownish orange tint on crown. Underside gray. Median rectrices green, lateral green at base, then black tipped grayish-white. Very common in Columbia. Dedicated to Mr. Théodore Poortman, by Bourcier.

\*184. PANYCHLORA RUSSATA, Salv. and Godm., Ibis, 1881, p. 597.

*Coppery Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 101.

*le Panychlore à queue cuivrée*.

*Habitat*.—Columbia.

*Male*.—Very closely allied to *P. poortmani*, from which it differs only by the russet coppery hue of the tail, and wing-coverts. The tail feathers are wide, and rounded at their ends, rather longer than in other species of this genus.

It was discovered in the Sierra Nevada of Santa Marta, by Mr. F. Simons. The type "Ex. Salv. and Godm. Coll." is in the British Museum.

185. PANYCHLORA STENURA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 50.

*Chlorostilbon acusticandus*, Gould, 1860, P.Z.S., p. 308.

*Panychlora aliciae*, Wyatt, Ibis, 1871, p. 379.

*Venezuelan Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 100.



*Le Panychlore à queue étroite*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 118.

*Habitat*—Merida, Venezuela.

*Male*.—Crown metallic green. Upperside shining golden-green. Underside metallic emerald-green. Undertail-coverts shining green. Tail bronze-green with blackish reflections. Median rectrices long with round tips, lateral very narrow, pointed, slightly longer, outermost ones excessively narrow and longer still. Wings purplish-brown. Bill black.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside golden-green. Uppertail-coverts shining green. Underside gray. Ear-coverts brownish-black. A white line behind the eyes. Wings dark brown. Median rectrices green, lateral green, then bluish-black with gray tips, outermost ones gray at base, then steel-blue with a large gray spot at tip. Bill black.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

It is a rare species. All my specimens were collected at Merida, Venezuela.

## FAMILY VIII. AMAZILIIDAE,

### OR FAMILY OF LARGE EMERALDS AND SAPPHIRES.

Bill usually flesh colour with black tips; in some genera the maxilla and tip of mandible are black, in others it is all black, about the same length as the head, straight, rather wide at base, terminating to a sharp point. Body small or of medium size. Wings long and narrow. Rectrices of tail narrow, of medium length, and more or less rounded, forked in some genera, in others the outermost rectrices are slightly shorter than the others, as in the genera *Léucippus*, *Leucochloris*, *Aithurus*, *Eupherusa*, etc. Sexes unlike. All the undersides of males are more or less brilliantly coloured emerald green or sapphirine blue. Tarsi more or less clothed. In the genera *Saucerottia* and *Amazilia* the tarsi are very clothed.

TYPE: *Amazilia* Reich, Av. Syst. Nat., 1849, pl. 39.

*Range*.—Mexico, Central and South America, to Argentine Republic.

This is a large family, containing many distinct genera; all of them closely allied to one another.

GENUS LIX. **Damophila**, Reich, Aufz. der Col., 1853, p. 7.

JULIAMYIA, Bp. Rev. and Mag. Zool., 1854, p. 255.

TYPE: *J. juliae*, Bourcier.

Bill as long as the head, straight and pointed. Tail cuneate, feathers narrow, and slightly pointed, outermost narrower, and much shorter than the others. Wings moderate, feathers very narrow. Tarsi bare. Sexes unlike.

*Habitat*.—Columbia and Ecuador.

186. DAMOPHILA TYPICA, Bon. Rev. and Mag. Zool., 1854, p. 255.

*Ornismyia juliae*, Rev. Zool., 1842, p. 373.

*Ornismyia felicianae*, Leis, Rev. Zool., 1844, p. 433.

*Hylocharis juliae*, Gray, Gen. Bird, vol. 1., p. 114.

*Damophila julia*, Reich, Aufz. der Col. 1853, p. 7.

*Juliamyia typica*, Gould, Mon. Troch., vol. v, p. 337.

*Felicia's Humming Bird*, Gould, Mon. Troch., Suppl., 1886, p. 95.

*Le Damophile de Julie*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii, p. 57.

*Habitat*.—Columbia, Ecuador.

*Male*.—Forehead and throat, glittering metallic grass-green, sometimes with golden reflections. Rest of upperside dark shining green, passing into bronze on the lower part of back. Tail steel-black. Breast, abdomen, and flanks shining Prussian blue. Undertail-coverts blue-black. Wings purplish-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length, 3 in. Wing,  $1\frac{3}{4}$ . Tail  $1\frac{1}{2}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Upperside bronze-green. Underside gray washed with green feathers on sides of breast and on flank. Centre of abdomen and tuft under vent, white. Lateral tail feathers tipped white.

This beautiful species was dedicated by Bourcier, to Miss Anne Julie Roncheval, afterwards Mrs. Mulsant.

I have put *D. felicianae* as a synonym of this species, as there is no difference at all between the specimens from Ecuador and Columbia. The colour of the crown of the head exists, exactly the same, in adult male specimens from Columbia, as in those from Ecuador. I have a good series of this species from Ecuador and Columbia.

187. *DAMOPHILA PANAMENSIS*, Berl. Journ. for Ornith., 1884, p. 313.

*Juliamyia typica*, Lawr. Ann. Lyc. N.Y., t. vi, p. 202.

*Damophila juliae*, Sclat and Salv., P.Z.S., 1864, p. 365.

*Panama Humming Bird.*

*le Damophile de Panama.*

*Habitat.*—Panama.

*Male.*—Very similar to that of *D. juliae*, but with the crown shining green like the back; not glittering like the throat.

GENUS I.X. **Cyanophaia**, Reich., Aufz. der Col., 1853, p. 10.

*Hylocharis*, Bon. Rev. and Mag. Zool., 1854, p. 255.

*Lepidopyga*, Reich., Troch., Enum., 1855, p. 7.

*Emilia*, Muls. and Verr. Troch., 1865, p. 41.

TYPE: *T. coeruleigularis*, Gould.

Bill a little longer than the head, slightly curved. Tail forked, feathers narrow and pointed. Wings long and narrow. Tarsi covered. Sexes unlike.

*Habitat.*—Veragua, Panama, Columbia.

188. *CYANOPHAIA CAERULEIGULARIS*, Gould, P.Z.S., 1850, p. 163.

*Trochilus duchaissingi*, Bourc. Compt. Rend., xxxii, p. 163., 1851.

*Cyanochloris caeruleigularis*, Reich., Aufz. der Col., p. 10.

*Lepidopyga coeruleigularis*, Reich., Troch. Enum., 1855, p. 7.

*Sapphironia dnchaissaingi*, Bon. Rev. and Mag. Zool., 1854, p. 256.

*Thalurania coelina*, Bourc., Rev. and Mag. Zool., 1856, p. 552.

*Blue-throated Sapphironia*, Gould, Mon. Troch., vol. v., p. 346.

*Le Lepidopyge à gorge bleue*, Muls., Hist. Nat. Ois. Mou., 1875, t. xi, p. 69.

*Habitat*.—Veragua and Panama.

*Male*.—Upperside shining bronze-green, reddish on upper tail-coverts. Median rectrices bronze-green, lateral bluish-black. Throat and chest metallic violet-blue. Flanks and abdomen shining grass-green. A tuft of white feathers on each side of anal region. Undertail-coverts shining green, margined with gray. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tips.

Total length,  $3\frac{4}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside golden-green, darker on forehead. Central rectrices bronze-green, lateral bluish-black, tipped white. Underside white, washed with shining green feathers on sides and middle of breast, and on flanks. Undertail-coverts white. Same size as male.

I collected several specimens of this fine and rare species at Colon (Panama).

189. CYANOPHAIA GOUDOTI, Bourc., Rev. Zool., 1843, p. 100.

*Polytmus goudoti*, Gray, Gen. Birds, Vol. 1, p. 77.

*Saucerottia goudoti*, Bon. Consp., Gen. Av., 1850, vol. i., p. 79.

*Chalybura goudoti*, Reich., Aufz. der Col., 1853, p. 10.

*Hylocharis goudoti*, Bon. Rev. and Mag. Zool., 1854, p. 255.

*Agyrtria goudoti*, Reich., Troch. Enum., 1855, p. 7.

*Sapphironia goudoti*, Gould, Mon. Troch., vol. v., p. 345.

*Lepidopyga goudoti*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 40.

*Emilia goudoti*, Muls., Hist. Nat., Ois. Mou., 1875, t. ii., p. 64.

*Sapphironia luminosa*, Lawr. Ann., N.Y., Lyc. Nat. Hist., 1862, vol. vii., p. 458.

*Green-breasted Sapphironia*, Gould, Mon. Troch., vol. v., p. 345.

*L'Emilie de Goudot*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 65.

*Habitat*.—Columbia.

*Male*.—Upperside shining grass-green. Underside glittering bluish-green in some specimens; in others, glittering yellowish-green. Median rectrices bronzy-green, lateral purplish-black. Undertail-coverts shining green, narrowly edged with grayish-white. A tuft of white feathers on sides of anal region. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 3½ in. Wing, 2. Tail, 1¾. Culmen, 1⅙.

*Female*.—Upperside bronze-green. Underside grayish-white washed with green feathers on sides of breast, abdomen and flanks. Median rectrices bronzy-green, lateral purplish-black, tipped gray.

Very abundant in Columbia, where it was discovered by the naturalist Goudot, who explored Columbia during many years. He died in that country. It is probable that many of the Columbian species of Humming Birds were sent first to Europe, by him, and by Boissoneau.

I have put *C. luminosa*, Lawr as a synonym of *C. goudoti*; because I have many specimens which correspond exactly to his description of that species, and I consider them all, as *C. goudoti*.

# GENUS LXI. *Arinia*, Muls., Ann., Soc., Linn., 1877.

TYPE: *A. boucardi*, Mulsant.

Bill subcylindrical, until near the point, when it is slightly swollen, shorter than half the body. Tail slightly forked. Rectrices narrow and pointed. Wings narrow, reaching for three fourths, the length of median rectrices. The external rectrices are slightly shorter than the next ones. Sexes unlike.

*Habitat*.—Costa Rica.

190. *ARINIA BOUCARDI*, Muls., Ann. Soc., Linn., Lyon., 1877.

*Sapphironia boucardi*, Boucard, P.Z.S., 1878, p. 70.

*Boucard's Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 81.

*L'Arène de Boucard*, Muls., His. Nat. Ois. Mou., 1878, t. iv., p. 194.

*Habitat*.—Costa Rica.

*Male*.—Upperside shining bronzy-green. Median rectrices shining bronze-green, next bronze-green with black tip, remaining lateral feathers bronze-green at base, rest purplish black, with a very slight gray margin at tips. Throat and breast shining green. Abdomen and undertail-coverts white. Flanks white, washed with green feathers. Wings purple-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length, 4in. Wing, 2. Tail,  $1\frac{9}{16}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Differs only from the male by the underside, which is grayish-white, washed with green feathers on sides of neck, breast and flanks, and the lateral feathers of tail, which are slightly tipped gray. Size same as male.

Types in my collection.

I discovered this new genus, and new species in May 1877, at Punta Arenas (Costa Rica), during the two days that I had to wait for the steamer, in which I was pursuing my voyage to Guatemala. They were searching for food in some flowers of a species of *Magnolia*, and I consider that I was very fortunate, because, although I collected some great rarities in birds during my stay in Costa Rica, this was the only new species of Humming Bird which I found, with the exception of *Oreopyra pectoralis*, Salv., which at that time we thought to be the same as *O. calolaema*, but in fact, I was the discoverer of that species also.

GENUS LXII. **Chrysuronia**, Bon. Consp. Gen. Av., 1850, vol. i., p. 75.

*Chrysurus*, Bon. Compt. Rendus. 1850. p. 382.

*Chrysurisca*, Cab. and Hein., Mus. Hein., 1860, t. iii. p. 42.

TYPE: *O. Aenone*, Lesson.

Bill slightly longer than the head, broad at base, and rather flat, graduating rapidly to a sharp point. Nostrils exposed. Wings long, reaching the end of tail. Tail forked in some species, in others slightly rounded. Rectrices narrow. Feet large. Tarsi clothed. Sexes unlike.

*Habitat*.—Central America to Argentine Republic.

191. **CHRYSURONIA AENONE**, Less, Ois. Mou, Suppl., p. 157.

*Polytmus aenone*, Gray, Gen. Birds, vol. i., p. 109.

*Chrysurisca aenone*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 42.



*Oenone Humming Bird*, Gould, Mon. Troch., vol. v., p. 325.

*La Chrysuronie Oenone*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 7.

*Habitat*.—Trinidad, Venezuela. Guiana.

*Male*.—Head and throat deep shining blue. Upperside shining grass-green, golden on rump. Upper tail-coverts fiery golden-bronze. Underside metallic yellowish-green. Undertail-coverts bronze edged with gray. Tail metallic golden-bronze. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside shining green. Uppertail-coverts bronze. Median rectrices bronze, lateral bronze at base, then black, tipped with grayish-white. Underside white, tinged with green feathers on sides of breast and flanks. Undertail-coverts greenish-gray. Slightly smaller than male.

192. CHRYSURONIA LONGIROSTRIS, Berlepsch, Krit. Neb., 1888, p. 20.

*Habitat*.—Columbia, Ecuador.

The only difference between this species and the preceding one is the length of the bill, which is one eighth of an inch longer. I hardly think it is sufficient to consider it as a species.

I possess two specimens collected by Buckley in Ecuador, one has the tail greenish-bronze instead of reddish-bronze, the other has all the underside, excepting the throat, metallic gold.

\*193. CHRYSURONIA HUMOLDTI, Bourc. and Muls., Ann. Soc. Phys. Lyon, 1852, p. 142.

*Chrysurisca humboldti*, Cab. and Hein., Mus. Hein., 1860, t. iii, p. 42.

*Thaumatias viridicaudus*, Lawr. Ann. Lyc., Nat. Hist. N.Y., 1866, p. 403.

*Humboldt's Humming Bird*, Gould, Mon. Troch., vol. v., p. 327.

*La Chrysuronie de Humboldt*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 187.

*Habitat*.—Ecuador.

*Male*.—Top of head and throat dark purple-blue. Upper surface golden-green, bronzy on the rump. Wings purplish-brown. Undersurface shining light bronzy-green with a white streak in the centre of the abdomen. Tail dark bronzy-green with a bluish shade on the central feathers. Undertail-coverts white. Bill flesh colour or red, (?) tip black. Feet brown.

Total length, 4in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{3}{4}$ .

*Female*.—Upperparts coppery-bronze. Undersurface dull white spangled with green. Central tail feathers dark green, lateral ones bronzy-green, graduating into dark brown, and tipped with white.

Total length, 4in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{3}{4}$ . (Elliot loc. cit.)

Typical specimens in Elliot and British Museum Collections.

194. *CHRYSURONIA NEERA*, Less and Del., Rev. Zool., 1839, p. 18.

*Ornismya josephinae*, Bourc. and Muls., Rev. Zool., 1848, p. 72.

*Trochilus josephinae*, Gray, Gen. Birds, Suppl., vol. iii., 30a.

*Chrysurisca josephinae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 10.

*Agyrtria caeruleiceps*, Gould, P.Z.S., 1860, p. 307.

*Josephine's Humming Bird*, Gould, Mon. Troch., vol. v., p. 326.

*La Chrysuronie de Joséphine*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 11.

*Habitat*.—Upper Amazons, Ecuador and Peru.

*Male*.—Crown of the head and chin deep shining blue. Upperside shining green. Tail and uppertail-coverts golden-bronze. Underside metallic grass-green. Undertail-coverts golden-bronze fringed with gray. Wings purplish-brown. Maxilla black. Mandible flesh colour, tip black.

Total length, 4in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside bronzy-green. Underside white, washed with green on sides of neck, breast and flanks. Rest of plumage like the male, but not so brilliant.

In my opinion the type of *Agyrtria caeruleiceps*, Gould, which I have examined, is only *C. neera*, male junior.

195. CHRYSURONIA BUCKLEYI, Boucard, Hum. Bird, 1893, vol. iii., p. 9.

*Buckley's Humming Bird.*

*La Chrysuronie de Buckley.*

*Habitat.*—Bolivia.

*Male.*—Head dark shining blue. Upperside golden-green. Tail and uppertail-coverts shining coppery-red. Underside metallic emerald-green, golden on abdomen and flanks. Undertail-coverts golden fringed with gray. Wings purplish-brown, Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female.*—Unknown.

This species is easily distinguished from the preceding one in not having any blue on the chin, the colour of its tail, its smaller size, and bill shorter.

It was discovered in Bolivia, by the late Buckley, in 1876.

Type in Boucard's Museum.

196. CHRYSURONIA ELICIAE, Bourc. and Muls., Ann. Soc. Agr. Lyon., 1846, t. ix., p. 314.

*Polytmus eliciae*, Gray, Gen. Birds, vol. i., p. 109.

*Chrysurisca eliciae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 42.

*Elicia's Golden Tail*, Gould, Mon. Troch., vol. v., p. 328.

*La Chrysuronie d'Elicia*, Muls., Hist. Nat., Ois. Mou., 1875, t. ii., p. 13.

*Habitat.*—Guatemala, Nicaragua, Veragua.

*Male.*—Upperside golden-green. Uppertail-coverts coppery-red. Tail golden-bronze with coppery tinge at tips. Throat shining blue with purplish reflections. Breast bluish-green. Abdomen and flanks dull golden-green, with buff on centre of abdomen. Undertail-coverts pale buff with bronze reflections. Tuft of white feathers on each side of anal region. Wings purplish-brown. Bill flesh colour with black tips.

Total length,  $3\frac{3}{8}$  in. Wing, 2. Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female.*—Upperside like that of male. Underside grayish-buff tinged with green on breast and flanks. Throat gray,

speckled with shining purplish-blue feathers. Undertail-coverts fawn. Size as that of male.

I think this species was discovered by Delattre in Guatemala. It was dedicated to Madame Elicia Alain, by MM. Bourcier and Mulsant.

197. CHRYSURONIA CHRYSURA, Less. Ois. Mou. Suppl., 1831, p. 107.

*Polytmus chrysurus*, Gray, Gen. Birds, vol. i., p. 100.

*Ramphodon chrysurus*, Reich., Aufz. der Col., p. 15.

*Golden Tail*, Gould, Mon. Troch., vol. v., p. 329.

*La Chrysuronie à queue d'or*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 5.

*Habitat*.—Brazil. (?)

*Male*.—Upperside, including the tail, shining golden-bronze. Throat, breast, upper part of abdomen, and flanks, metallic golden-red. Rest of abdomen reddish-gray. A tuft of white feathers on each side of anal region. Undertail-coverts golden with gray edges. Wings purplish-brown. Bill flesh colour, with black tips.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside golden-bronze. Underside, like that of male, but less brilliant. Same size as male.

It is a very rare species.

198. CHRYSURONIA RUFICOLLIS, Veill., N. Dict. Hist. Nat., vol. vii., p. 362.

*Ornisymia ruficollis*, d'Orb. and Laf., Syn. Av., 1838, p. 30.

*Rufous-Throated Golden-Tail*.

*la Chrysuronie à gorge rousse*.

*Habitat*.—Bolivia, Paraguay.

*Male*.—Upperside golden-green. Tail bronze. Throat-rufous. Breast, sides of abdomen and flanks shining golden-green. Centre of abdomen grayish-buff. Undertail-coverts golden-rufous with gray edges. Wings purple-brown. Bill flesh colour with black tips.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside golden-green. Tail bronze, with gray tips on lateral feathers. Rest as male.

*Young Male*.—Chin buff. Abdomen, flanks and undertail-coverts buff-gray, tinged on flanks with golden-green feathers. Maxilla black. Mandible flesh colour at base, rest black.

A very rare species.

GENUS LXIII. **Polyerata**, Heine, Journ. fur Orn., 1863, p. 194.

*Coeligena* and *Damophila*, Reich., Aufz. der Col., p. 7.

TYPE: *P. amabilis*, Gould.

Bill longer than the head, straight, terminating in a sharp point. Nostrils exposed. Tail very slightly forked. Wings long, reaching nearly the end of tail. Feet small. Tarsi clothed. Sexes unlike.

*Habitat*.—Costa-Rica, Veragua, Columbia.

199. POLYERATA AMABILIS, Gould, P.Z.S., 1851, p. 115.

*Juliamya amabilis*, Bon., Rev. and Mag. Zool., 1854, p. 53.

*Polyerata amabilis*, Heine, Journ. fur Ornith, 1863, p. 194.

*Polyerata decora*, Salv., Ann. Mag. Nat. Hist., 1891, p. 394.

*Blue breasted Polyerata*.

*La Polyerate aimable*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 53.

*Habitat*.—Costa Rica, Columbia.

*Male*.—Forehead shining metallic green. Upperside bronze-green. Uppertail-coverts and median rectrices reddish-bronze in some specimens, in others greenish-bronze, lateral rectrices bronze at base, then bluish-black, outermost ones nearly black for all their length. Chin shining greenish-bronze, with black reflections in centre. Throat and upperpart of breast metallic violet-blue in some specimens, in others metallic blue with scarcely any purple reflections. Lower part of breast and flanks greenish-bronze. Abdomen and undertail-coverts gray. A tuft of white feathers on each side of vent. Wings purplish-brown. Maxilla black. Mandible flesh-colour, tip black.

Total length,  $3\frac{5}{8}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside bronze-green, reddish on uppertail-coverts. Median rectrices bronzy-green, with black tips, lateral, bronze at base, then black with grayish tips. Chin

gray, spotted with bronze feathers. A few shining blue spots on breast. Rest of underside plumage, like the male. Dimension slightly smaller than the male.

It is a rare species. I have several specimens from Columbia, and Chiriqui (Veragua). Others I killed at San Carlos (Costa Rica), thinking at the time that I had discovered a new species. Lately Mr. Salvin have described specimens from Chiriqui under the name of *Polyerata decora*; but I am of opinion that they are all one and same species, having some specimens from Columbia, coloured exactly as those from Costa Rica and Chiriqui. In my specimens, the central rectrices have a reddish shade as in the others, the only difference that I can see is that the throat of my specimens from Costa Rica and Chiriqui is more bluish than in those from Columbia and Ecuador.

GENUS LXIV. **Hylocharis**, Boié, Isis, 1831, p. 546.

*Sapphironia*, Bon., Rev. et Mag. Zool, 1854. p. 256.

TYPE: *T. sapphirinus*, Gmelin.

Bill longer than the head, straight, broad, and flat at base. Wings long, pointed, nearly reaching the end of tail. Rectrices narrow, of even size. Tarsi clothed. Males brilliantly coloured on breast, and sometimes on forehead also. Females plain.

*Habitat*.—Guiana, Brazil, Peru.

200. HYLOCHARIS SAPPHIRINA, Gmel. Syst. Nat., 1788, t. i., p. 496.

*Trochilus fulvivfrous*, Lath. Ind. Ornith. Suppl., 1790, vol. ii., p. 172.

*Ornismya sapphirina*, Less. Ois. Mou., 1829, p. 172.

*Sapphironia sapphirina*, Bon. Rev. and Mag. Zool., 1854. p. 256.

*Red-throated Sapphire*, Gould, Mon. Troch., vol. v., p. 342.

*L'Hylocare à poitrine de saphir*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 17.

*Habitat*.—Brazil.

*Male*.—Upperside dark shining green. Uppertail-coverts reddish-bronze. Middle rectrices reddish-bronze, lateral chestnut, edged with blackish purple. Chin rufous. Throat and



breast dark sapphirine-blue. Bill flesh colour with black tips. It differs in size according to specimens. Wings purple. A tuft of white feathers on each side of lower part of vent.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Underside grayish-white. Chin rufous. Breast speckled, with a few bright blue feathers. Rectrices purple-bronze, lateral tipped with white. Rest of plumage like that of male.

201. HYLOCHARIS GUIANENSIS, Boucard, H. Bird, vol. i., p. 52.

*Guiana Sapphire.*

*l'Hylochare de Guyane.*

*Habitat*.—Guiana.

Differing from the preceding species by the darker colour of upperside, and the median rectrices which are coppery-green, instead of reddish-bronze.

Total length,  $3\frac{5}{8}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

This species was discovered by Henry Whitely, in British Guiana. Types in my Collection.

202. HYLOCHARIS BRAZILIENSIS, Boucard, Hum. Bird, 1893, vol. iii., p. 7.

*Brazilian Sapphire.*

*l'Hylochare du Brésil.*

*Habitat*.—Rio, Brazil.

*Male*.—Upperside shining green, golden on back. Median rectrices bronze with purplish reflections, lateral chestnut, edged with purplish-black. Chin rufous. Throat and breast metallic greenish-blue. Flanks and abdomen golden-green. Wings purple. Bill flesh colour with black tips.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

I have only one fine adult male specimen of this new species, which differs considerably from the two preceding ones by the colour of throat and breast, and the golden colour of general plumage.

Type in Boucard's Museum.

203. HYLOCHARIS CYANEA, Vieill., Nouv. Dict. Hist. Nat., t. xxiii., p. 426.

*Ornismya bicolor*, Less., Ois. Mou., 1829, p. 161.

*Thaumatias cyaneus*, Bon., Consp. Gen. Av., 1850, vol. i., p. 78.

*White-throated Sapphire*, Gould, Mon. Troch., vol. 5, p. 344.

*l'Hylochare à front bleu*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 20.

*Habitat*.—Brazil.

*Male*.—Head, throat and breast shining dark blue. Upper-side bronzy-green passing into reddish-bronze on rump. Upper-tail-coverts dark reddish-bronze. Underside green with gray tinge. A tuft of white feathers on each side of the anal region. Undertail-coverts bluish-black with grayish or bronzy edges. Tail blue-black. Wings purple. Bill flesh colour with black tips.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside like that of male, dark green on forehead. Underside grayish-white tinged with green on sides of throat and breast. Lateral rectrices tipped grayish-white. Young males have the chin and breast shining pale blue.

204. HYLOCHARIS VIRIDIVENTRIS, Berlepsch, Ibis, 1880, p. 113.

*Green-vented Sapphire*.

*l'Hylochare a ventre vert*.

*Habitat*.—Venezuela, Trinidad, British Guiana and Orinoco.

This is a northern form of *H. cyanea*, from which it differs in its somewhat more splendid and vivid colouration. In particular, I find the belly to be never mixed with gray, as in Brazilian specimens, but of a dark and splendid green colour.

205. HYLOCHARIS BARTLETTI, Gould, P.Z.S., 1866, p. 194.

*Agyrtria Bartletti*, Elliot, Class and Syn. Troch., 1879, p. 205.

*Bartlett's Emerald*, Gould, Mon. Troch. Suppl., 1886, p. 74.

*Le Thumatias de Bartlett*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 255.

*l'Hylocare de Bartlett*.

*Habitat*.—Peru.

*Male*.—Upperside bronzy-green. Throat and breast shining purplish-blue. Abdomen and flanks dark green, washed with gray. Centre of abdomen, sides of flanks, and tuft on each side of lower part of vent pure white. Undertail-coverts pale gray, with green in centre. Median rectrices bronze, with bluish-black tips, lateral bluish-black. Wings purple-brown. Maxilla black. Mandible flesh colour.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{2}{5}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

This rare species was discovered by Bartlett in Peru, and it was dedicated to him, by John Gould.

My specimens were collected in Peru, by Garlepp in 1887.

It is very closely allied to *H. lactea*, from which it differs only by the lighter bronze colour of its general plumage, and the bill, which is longer.

206. *HYLOCHARIS LACTEA*, Less., Ind. Gen. Syn. Ois., 1831, p. 38.

*Cyanochlaris lactea*, Reich., Aufz. der Col., 1853, p. 10.

*Sapphironia lactea*, Bon., Rev. and Mag. Zool., 1854, p. 256.

*Blue breasted Sapphire*, Gould, Mon. Troch. vol. v., p. 343.

*l'Hylochare à ventre blanc*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 23.

*Habitat*.—Brazil.

*Male*.—Upperside shining grass-green, bronzy on crown, and uppertail-coverts. Throat and breast metallic sapphirine-blue. Middle of the abdomen white, and tuft on each side of vent, pure white. Flanks shining green. Undertail-coverts white with dark disks. Median rectrices blackish with bronze margin, lateral bluish-black with olive margin. Maxilla black, mandible flesh colour with black tip.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{2}{5}$ . Tail,  $1\frac{2}{5}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Same colouring as the male, with throat and breast of a paler blue. Lateral rectrices tipped with gray.

It is a rare species, and only represented by one male specimen in the collection of the British Museum. I possess several fine specimens from Brazil.

GENUS LXV. *Agyrtria*, Reich., Troch., Enum., 1855, p. 7.

*THAUMANTIAS*, Bon., Rev. and Mag., Zool., 1854, p. 255.

THAUMATIAS, Gould, Mon. Troch., Intr., 1861, p. 151.

TYPE: *Agyrtria leucogastra* Reichenback.

Bill longer than the head, straight, broad at base, and acutely pointed. Feathers of the forehead not extending upon the culmen. Nostrils exposed. Wings long and narrow. Median rectrices slightly shorter than the next two, these also shorter than the two outermost ones, no subterminal bar on the lateral rectrices of the large species, which are generally bronze at base, with the remainder black. A subterminal bar on lateral rectrices of the small species. Tarsi clothed. Sexes alike.

*Habitat*.—Guiana, Venezuela, Trinidad and Brazil.

207. AGYRTRIA LEUCOGASTER, Gmel. Syst. Nat., 1788, vol. i., p. 495.

*Ornysmia albirostris*, Less. Ois. Mou., 1829, p. 212

*Thaumantias leucogaster*, Bon., Rev. and Mag., Zool., 1854, p. 255.

*Agyrtria, leucogastra*, Reich, Aufz. der Col., 1853, p. 10.

*White-throated Emerald*, Gould, Mon. Troch., vol. v., p. 294.

*La Leucolie leucogastre*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 232.

*Habitat*.—Brazil.

*Male*.—Head and sides of neck metallic green. Upperside shining grass-green. Median rectrices bronze-green, lateral steel-black with tips slightly margined with gray. Throat, centre of the abdomen, and undertail-coverts pure white. Breast and sides of flanks shining bronze-green. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 3½ in. Wing, 2½. Tail, 1½. Culmen, ¾.

208. AGYRTRIA, VIRIDICAUDA, Berlepsch, Ibis, 1883, p. 493.

*Leucippus viridicauda*, Berlepsch, Ibis, 1883, p. 493.

*Berlepsch's White-throat*, Gould, Mon. Troch., Suppl., 1886, p. 73.

*La Leucolie de Berlepsch*.

*Habitat*.—Huiro, Peru.

Differs only from *L. leucogaster*, by reason of its uniform tail feathers, these never being margined with white, as well as by its shorter bill.

This species was discovered in Peru, by Mr. H. Whitely.

\*209. AGYRTRIA ALLENI, Elliott, Auk., 1888, p. 263.

*Allen's Emerald.*

*le Thaumantias d'Allen.*

*Habitat.*—Yungas, Bolivia.

Top of head and occiput dark greenish-blue, not metallic; nape, back, and shoulders, shining grass-green; rump and uppertail-coverts glittering bronze. Tail shining bronze, with the tips of feathers pale gray, widest on the outermost rectrices, and diminishing to the central ones, which have a mere indication of gray at the tip. Wings purplish-brown. Sides of neck shining bluish-green. Throat and centre of breast white, speckled with shining green; sides of breast and flanks metallic grass-green. Abdomen whitish. Undertail-coverts pale brown, edged with white. Maxilla black. Mandible flesh colour, tip black. Feet black.

Total length,  $3\frac{1}{2}$  in. Wing,  $1\frac{7}{8}$ , Tail,  $1\frac{7}{16}$ . Bill,  $\frac{3}{4}$ .

"Elliot's loc. cit."

Type unique in the New York American Museum of Natural History.

It was brought from Bolivia, by Doctor H. Rusby.

210. AGYRTRIA COMPSA, Hein., Journ. fur Ornith., 1863, p. 185.

*Agyrtria mellisuga*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 34.

*Thaumantias compsa*, Elliot, Ibis, 1878, p. 45.

*Heine's Emerald*, Gould, Mon. Troch. Suppl., 1886, p. 75.

*Le Thaumantias de Heine.*

*Habitat.*—Guiana, Brazil.

*Male.*—Forehead, sides of neck and breast metallic golden-green. Upperside golden-green. Median rectrices dark bronze, lateral purple-blue. Throat, centre of breast, abdomen, and undertail-coverts white. Flanks golden-green. Wings purple-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{7}{8}$ .

\*211. AGYRTRIA NITIDIFRONS, Gould, P.Z.S., 1860, p. 308.

*Thaumatias nitidifrons*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., page 238.

*Brilliant fronted Emerald*, Gould, Mon. Troch., vol. v., p. 297.

*le Thaumatias à front brillant*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 239.

*Habitat*.—Venezuela (?)

*Adult*.—Crown of the head, face, chest, and neck glittering green; abdomen and flanks golden-green; back, shoulders, and rump bronzy-green; tail pale bronzy green, with a zone of purplish-brown crossing the four lateral feathers on each side, near their tips; undertail-coverts gray with a patch of bronzy-green in the centre of each; tarsi grayish-brown; upper mandible black; under mandible yellow, black at tip.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{1}{8}$ . Culmen,  $\frac{3}{4}$ . "Gould loc cit."

Gould's type, presented to him by Mr. Lawrence of New York, is still unique, and is now in the collection of the British Museum.

212. AGYRTRIA TEPHROCEPHALA, Vieill., Nouv. Dict. Hist. Nat., t. xxiii., p. 430.

*Ornysmia tephrocephala*, Less. Ois. Mou., 1892, p. 182.

*Ornysmia albiventris*, Less. Ois. Mou., 1829, p. 209.

*Polytmus thaumatias*, Gray, Gen. Birds, vol. i., p. 108.

*Thaumatias albiventris*, Bon. Consp. Gen. Av., 1850, vol. i., p. 70.

*Coeligena tephrocephala*, Reich., Aufz. der Colib., 1853, p. 7.

*White bellied Emerald*, Gould, Mon. Troch., vol. v., p. 301.

*Le Thaumatias à ventre blanc*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 245.

*Habitat*.—Brazil.

*Male*.—Upperside dark bronzy-green, deeper in the middle of back. Median rectrices bronze-green, lateral bronze at base, passing into black with gray tips. Throat and breast grass-green. Abdomen and undertail-coverts white. Flanks



white, washed with green. Wings purplish-brown. Maxilla black. Mandible flesh-colour, tip black.

Total length, 4in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Slightly smaller, and less brilliant than the male.

213. AGYRTRIA TOBACI, Gmel. Syst. Av., 1788, p. 498.

*Trochilus tobagensis*, Lath., Ind. Ornith., 1790, vol. i., p. 316.

*Trochilus maculatus*, Vieill., Ois. Dor., 1802, t. i., p. 87.

*Ornysmia viridissima*, Less., Ois. Mou., 1829, p. 207.

*Saucerottia viridipectus*, Reich., Aufz. der Col., 1853, p. 7,

*Agyrtria maculata*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 33.

*Thaumatias linnaei*, Gould, Mon. Troch., vol. v., p. 302.

*Linnaeus Emerald*, Gould, Mon. Troch., vol. v., 302.

*Le Thaumatias de Linné*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 248.

*Habitat*.—Tobago, Trinidad, Venezuela, Guiana.

*Male*.—Upperside bronzy-green. Median rectrices bronze-green, lateral bronze at base passing into black, with pale bronze tips. Throat and breast metallic emerald-green. Centre of abdomen white. Flanks bronze-green. Undertail coverts pale greenish-bronze, margined white. Wings purplish-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{7}{8}$ in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Same colouring as male, but not so bright. Lateral feathers of tail largely tipped, with pale green-bronze. Slightly smaller than the male.

My specimens from Trinidad and Venezuela, have scarcely any black on the lateral feathers of tail, and the bill is flesh colour, with black tips.

214 AGYRTRIA APICALIS, Gould, Int. Troch., 1861, p. 154.

*Agyrtria terpna*, Heine, Journ., fur Ornith., 1863, p. 184.

*Black-tipped Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 77.

*Habitat*.—Columbia.

*Male*.—This species is very much like the preceding one. The only difference which I can perceive is its larger size, and the centre of breast which is white.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen, 1.

\*215. AGYRTRIA MACULICAUDA, Gould, Int. Troch., 1861, p. 154.

*Guiana Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 77.

*Le Thaumantias à queue tachée*, Muls., Hist., Nat. Ois., Mou., 1874, t. i., p. 251.

*Habitat*.—Guiana.

*Male*.—This is a very small species with a long thin bill, its breast is green as in the others. Centre of the abdomen white; undertail-coverts white except in the centre, where they are dark brown; two central tail feathers bronzy-green, except at the extreme tip, which is greenish-black, the next one on each side, bronze for half its length, then black, the three outer ones, on each side, bronzy-green at base, then broadly zoned with black, next to which, they are green, and lastly white.

Total length,  $3\frac{1}{2}$  in. Bill,  $\frac{7}{8}$ . Wing, 2. Tail,  $1\frac{1}{8}$ . "Gould, loc. cit."

216. AGYRTRIA NIGRICAUDA, Elliot, Ibis, 1878, p. 47.

*Black-tailed Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 80.

*Le Thaumantias à queue noire*.

*Habitat*.—Trinidad, Guiana, Brazil.

*Male*.—Upperside bronzy-green, darkest on the head, and shading into purple on the uppertail-coverts. Tail steel-black excepting the median rectrices which are purplish-bronze at base, the two outermost feathers are greenish-gray at tips. Throat and breast shining metallic grass-green. Flanks dark green. Middle of abdomen, vent, and undertail-coverts white. Wings purple. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{5}{8}$ .

I have some specimens of this species from Brazil and Trinidad, in which the median rectrices, and the one next to them are purplish-bronze with blackish tips.

217. AGYRTRIA NITICAUDA, Elliot, Ibis, 1878, p. 48.

Bright-tailed Emerald, Gould, Mon. Troch., Suppl., 1886, p. 80.

*Thaumatias niticanda*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 177.

*le Thaumatias à quene brillante.*

*Habitat*.—Guiana.

*Male*.—Upperside bronze-green, with a slight coppery tinge on the head. Chin white. Throat, breast, and sides of neck bright metallic green. Flanks and abdomen bronze-green. Middle of abdomen, vent, and undertail-coverts white. Median rectrices bronze-green, lateral purplish-black, edges and tips of outermost bronze green. Wings purplish-brown. Bill flesh colour with dark tips.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Bill,  $\frac{3}{4}$ .

Type in the Museum of New York "Ex. Elliot's Coll."

By the description and my specimens, which agrees with it, and were collected by Whitely in Guiana, I should not be surprised if this species, and *A. maculicauda*, Gould, turn out to be only the well known species *A. tobaci*.

218. AGYRTRIA FLUVIATILIS, Gould, Int. Troch, 1861, p. 154.

*Riverine Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 76.

*Le Thaumatias fluviatile*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 254.

*Habitat*.—Pelas (Peru.)

*Male*.—Upperside shining golden-green. Median rectrices bronze-green largely tipped with bluish-black, lateral bronze at base of external web, then bluish-black, the two outermost ones bluish-black, with a very slight gray margin at tips. Throat and breast luminous grass-green. Abdomen and flanks shining greenish-bronze. Vent white. Undertail-coverts pale green, edged with gray. Wings purple. Bill flesh colour with black tips.

Total length,  $3\frac{7}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside shining grass-green, bronzy on forehead and uppertail-coverts. Median rectrices, bronze-green, lateral bronze-green on external webs, then bluish-black, margined white at tips, outermost one bluish-black with

margin of tip white, underneath bluish-black with grayish tip. Throat and breast luminous green, lighter than in the male. Flanks and abdomen bronzy-green. Centre of breast abdomen, and vent white. Undertail-coverts greenish-brown edged white. Maxilla brownish-black. Mandible flesh colour with black tip.

Total length,  $3\frac{7}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{7}{8}$ .

I think the discoverer of this species is Mr. Hauxwell, as my specimens, of both sexes, of this species, were collected by him at Pebas in 1866, and it is very probable that the typical specimen of Gould came also from him.

It is a rare species in the Collections.

\*219. AGYRTRIA (?) LUCIAE, Lawr., Proceed., Acad., Nat., Sci., Philad., 1867, p. 233.

*Lucy's Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 78.

*Le Thaumantias de Lucie*, Musl., Hist. Nat. Ois. Mou., 1874, t. i., p. 241.

*Habitat*.—Honduras.

Upper plumage dull bronzy dark green, crown duller; uppertail-coverts a lighter bronzy-green somewhat golden; tail feathers dull bronzy-green, all except the two central ones broadly marked near their ends with dark purplish-bronze, the tips being ashy-gray; the throat and breast are glittering bluish-green; middle of the abdomen white; wings brownish-purple. Upper mandible black, the under one yellow with the end blackish; feet black.

Length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Bill,  $\frac{1\frac{3}{8}}{16}$ . "Lawr., loc.cit."

This species was dedicated to Miss Lucie Brewster, daughter of Mr. Thomas Brewster, of Boston.

\*220. AGYRTRIA NORRISII, Bourc., P.Z.S., 1847, p. 47.

*Polytmus norrisii*, Gray, Gen. Birds, vol. i., p. 108.

*Amazilia norrisii*, Reich., Aufz. der Col., 1853, p. 10.

*Pyrrophaena norrisii*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 36.

*Hemistilbon norrisii*, Gould, Int. Troch., 1861, p. 150.

*Leucodora norrisii*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 309.

*Thaumatias norrisii*, Elliott, Ibis., 1878, p. 44.

*Thaumatias lerdi*, De Oca, la Naturaleza, 1874, t. iii, p. 24.

Norris's Emerald.

*Le Leucodore de Norris*, Muls., Hist. Nat. Ois. Mou., 1874, t. i, p. 310.

*Habitat*.—Mexico.

*Male*.—Upper parts golden-green. Throat and sides of neck metallic golden-green. Breast white. Abdomen and flanks pale rufous. Uppertail-coverts light grayish-green. Undertail-coverts grayish-white. Wings pale green. Tail shining grayish-green. Feet flesh colour. Bill flesh colour, black at the point.

Wing, 55 mill. Tail, 35. Bill, 18.

“Bourcier, P.Z.S., 1847, p. 47.”

221. AGYRTRIA BREVIROSTRIS, Less., Ois. Mou., 1829, p.p. 35-211.

*Basilinna brevirostris*, Less., Ind. Gen., and Syn., Gen. Troch., 1831, p. 26.

*Polytmus brevirostris*, Gray, Gen. Birds, vol. i., p. 108.

*Thaumatias brevirostris*, Bon., Consp. Gen. Av., 1850, vol. i., p. 78.

*Agyrtria brevirostris*, Reich., Aufz. der Col., 1853, p. 10.

*Short-billed Emerald*, Gould, Mon. Troch., vol. v., p. 298.

*Le Thaumatias brévirostre*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 242.

*Habitat*.—Brazil.

*Male*.—Upperside shining bronzy-green. Median rectrices shining olive-green, lateral olive-green, with a subterminal black bar near the tips, which are grayish-bronze. Sides of neck and breast metallic-green. Throat, centre of breast, and abdomen white. Flanks bronze-green. Undertail-coverts gray, margined with white. Wing purple-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length, 2 $\frac{2}{8}$ in. Wing, 2. Tail, 1 $\frac{2}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Like the male, less brightly coloured on sides of neck and breast. Lateral rectrices slightly tipped with gray.

Abundant in Brazil.

222. AGYRTRIA VERSICOLOR, Nordm., Erm., Reise, 1835, pl. 1.

*Hylocharis versicolor*, Gray, Gen. Birds, vol. 1, p. 108.

*Agyrtria versicolor*, Reich., Aufz. der Col., 1853, p. 10.

*Thaumatias versicolor*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Thaumatias affinis*, Gould, Mon. Troch., vol. v., p. 299.

*Agyrtria affinis*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 33.

*Allied Emerald*, Gould, Mon. Troch., vol. 5, p. 299.

*Le Thaumatias tout vert.*

*Habitat*.—Brazil.

*Male*.—Upperside bronzy-green. Median rectrices bronze, lateral pale olive-bronze with the subterminal bar pale brown. Throat, sides of neck, and breast glittering metallic green, showing the white base of feathers. Flanks and abdomen shining bronzy-green. Undertail-coverts olive-bronze, margined with white. Wings purplish-black. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Coloured like the male, but less bright on sides of neck, with the centre of throat, breast and abdomen, white. Lateral rectrices margined with gray.

223. AGYRTRIA CANDIDA, Bourc. and Muls., Ann. Soc. Agri., Lyon, 1846. t. ix., p. 326.

*Ornysmya senex*, Less., Rev. Zool., 1838, p. 315.

*Polytmus candidus*, Gray, Gen. Birds, vol. 1, p. 108.

*Thaumatias candidus*, Bon., Consp. Gen. Av., 1850, vol. i., p. 78.

*Agyrtria margaritaceus*, Reich., Troch. Enum., 1855, p. 7.

*Leucolia candida*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 233.

*White breasted Emerald*, Gould, Mon. Troch., vol. v. p. 292.

*le Candide,*

*Habitat*.—Mexico to Nicaragua.

*Male*.—Upperside bronze, greenish on back. Tail bronze, with a reddish tinge at tips, lateral with a brownish-black



subterminal bar and pale bronze tips. Throat, breast, abdomen and undertail-coverts white. Sides of breast and flanks pale bronzy-green. Maxilla black. Mandible flesh colour with black tip. Wings purplish.

Total length,  $3\frac{1}{4}$  in. Wing, 2. Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Exactly like the male excepting the tail beneath, which is grayish-bronze with a subterminal blackish bar on lateral feathers and very pale bronzy-gray tips.

I have collected this species in Mexico, where it was abundant. I think the typical specimen was collected by Delattre.

GENUS LXVI. **Uranomitra**, Reich., Aufz. der Col., 1853,  
p. 10.

*Cyanomyia*, Bon., Rev. and Mag., Zool., 1854, p. 254.

*Leucolia*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 211.

TYPE: *T. franciae*, Bourcier.

Bill longer than the head, straight or slightly curved; broad and flat at base. Nostrils exposed. Wings long. Tail slightly forked, median rectrices slightly shorter than the next, which are also slightly shorter than the other two; these are of the same length. All the lateral rectrices have a subterminal bar more or less apparent. Tarsi partly clothed. Forehead brilliantly coloured in both sexes, which are coloured alike.

*Habitat*.—Mexico, Central America, Columbia, Ecuador, Peru.

224. URANOMITRA FRANCIAE, Bourc. and Muls., Ann. Soc.  
Agr., Lyon, 1846, t. ix., p. 324.

*Polytmus franciae*, Gray, Gen. Birds, vol. i., p. 109.

*Agyrtria franciae*, Reich., Troch. Enum., 1855, p. 7.

*Cyanomyia franciae*, Bon., Rev. and Mag., Zool., 1854, p.  
254.

*Leucolia franciae*, Muls., His. Nat. Ois. Mou., 1874, t. i.,  
p. 217.

*Franciás Azure Crown*, Gould, Mon. Troch., vol. v., p. 287.

*La Leucolie de Francia*, Muls., Hist. Nat. Ois. Mou., 1874,  
t. i., p. 218.

*Habitat*.—Columbia.

*Male*.—Head metallic blue. Neck brilliant green. Rest of upper parts bronzy-green, changing to coppery-red on rump and upper-tail coverts. Median rectrices bronze, lateral of same colour, with a blackish spot appearing as a subterminal bar near the tips. These spots on the lateral feathers, and the length of rectrices, are the principal differences which distinguish this genus from *Cyanomyia*. Underside pure white, excepting sides of neck and breast, which are metallic green. Sides of flanks washed with green. Wings purple-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length, 4in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Head bluish. Upperside bronze-green, golden on lower part of back, and coppery-red on uppertail-coverts. Tail bronze, with the subterminal blackish bar more apparent than in the male, and the tips of lateral rectrices slightly margined with gray. Underside pure white, sides of neck metallic-green, flanks golden. Wings purple-brown. Bill black except base of mandible which is flesh colour. Same size as male.

It is a common species.

225. URANOMITRA CYANICOLLIS, Gould, P.Z.S., 1853, p. 61.

*Cyanomyia cyanicollis* Bon., Rev. and Mag. Zool., 1854, p. 254.

*Leucolia cyanicollis*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 212.

*Blue Necked Azure Crown*, Gould, Mon. Troch., vol., v, p. 288.

*La Leucolie à cou bleu*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 212.

*Habitat*.—Peru.

*Male*.—Crown of the head, nape, and sides of neck metallic blue with greenish reflections. Upperside bronzy-green passing to golden on rump, and uppertail-coverts. Tail bronzy-green, all the laterals crossed near the tip with an obscure brown band. Underside pure white, flanks white washed sparingly with pale golden feathers. Wings purple-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{1}{2}$ in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{7}{8}$ .

Female unknown; but probably like the male, less metallic on head and sides of neck.

This very rare species was discovered in Peru, by the well-known traveller Warszewicz.

\*226 URANOMITRA PELZENI, Tacz., P.Z.S., 1879, p. 239.

*Leucolia pelzeni*, Tacz. P.Z.S., 1879, p. 239.

*La Leucolie de Pelzen*.

*Habitat*.—Peru.

*Female*.—Rostrum subarquatum, dimidia parte corporis sublongius; pileo viridi-nitido; corpore supra viridi-subcupreo; cauda subtruncata, vix emarginata; rectricibus viridi-aeneis, externis in apice cinereis et macula longitudinali fusca notatis; corpore subtus albo sericeo; lateribus colli et capitis maculis splendidis viridi-caeruleis ornatis; lateribus epigastri viridi maculatis; ventris lateribus viridibus; subcandalibus albis.

Head shining green. Rest of upperside bronzy-green. Tail nearly truncate, median rectrices shortest shining green, slightly bronzy, lateral and outermost green, less brilliant with a subterminal black bar and gray tips. Wings purplish-brown. Underside pure white. Sides of neck, breast, and flanks spotted with shining bluish pale green. Undertail-coverts pure white. Maxilla black. Mandible flesh-colour, with black tip. Feet black.

Length of wing, 53 mill. Tail, 33. Culmen, 22.

This species, unique in Warsaw Museum, was discovered in May 1878, at Guajungo, Upper Marañon, by Mr. Stolzmann.

I believe it to be the female of *U. cyanicollis*.

\*227. URANOMITRA NEGLECTA, Elliott, Ibis, 1877, p. 140.

*Ornismyia bicolor*, d'Orb and Lafr., Syn. Av., 1838, t. ii., p. 30.

*Bar-tailed Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 75.

*Le Thaumantias négligé*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 175.

*Habitat*.—Bolivia.

*Male*.—Top of head, nape, and mantle green; throat and upperpart of breast brilliant metallic blue, the white base of the

feathers showing amid the blue; back, rump, and uppertail-coverts light greenish-bronze. Wings purplish. Undertail-coverts pale brown, margined with white. Tail pale greenish-bronze, with a subterminal black bar on lateral feathers. Maxilla black, mandible flesh colour. Feet black. "Elliot Synopsis, Troch., p. 205."

Total length,  $3\frac{1}{4}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Bill,  $\frac{3}{4}$ .

*Female*.—Upperparts, sides of throat, and flanks shining green. Centre of throat and underparts whitish, spotted with light metallic green. Tail like the male, tips of lateral feathers whitish. Undertail-coverts white. Wings purple. Bill like the male. Feet black.

Total length,  $3\frac{3}{4}$  in. Wing, 2. Tail,  $1\frac{1}{4}$ . Bill,  $\frac{3}{4}$ . "Elliot, loc. c."

228. URANOMITRA VIRIDICEPS, Gould, P.Z.S., 1860, p. 307.

*Green-headed Emerald*, Gould, Mon. Troch., vol. v, p. 295.

*La Leucolie à calotte verte*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 229.

*Habitat*.—Ecuador.

*Male*.—Head and sides of neck metallic green. Upper-side shining bronzy-green, passing to reddish-golden on rump and uppertail-coverts. Median rectrices bronze, lateral pale bronze with a subterminal bar of brown near the tips, which are grayish-bronze. Throat, centre of breast, abdomen, and undertail-coverts white. Sides of breast and flanks, white washed with green. Wings purplish-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length, 4 in. Wing,  $2\frac{2}{3}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Head shining green. Upperside dull bronzy-green. Tail greenish-bronze with subterminal blackish bar on lateral feathers. Underside white. Sides of breast and flanks sparingly washed with green. Wings purplish-brown. Same size as male.

I have a male with the head and sides of neck metallic bluish-green. My specimens were collected in Ecuador, by Buckley. It is a rare species.

\*229. URANOMITRA TACZANOWSKII, Sclater, P.Z.S., 1879, p. 146.

*Leucolia taczanowskii*, Deslongch, Cat. Descr. Troch., vol. i., p. 301.

*Taczanowski's Emerald*, Gould, Mon. Troch., Suppl., 1886, p. 79.

*La Leucolie de Taczanowski.*

*Habitat*.—Guayungo, Peru.

Supra metallice viridis, in capite cupreo lavatus, plumis subtus cinereis; alis fuscis, tectricibus dorso concoloribus; cauda aequali, supra dorso concolori, versus apicem cupreo-tincta, subtus fusca, versus apicem cupreo-virescente; corpore subtus albo, lateraliter et in crisso praecipue pallido cinereo perfuso; gutture toto punctis minutis, cordiformibus, nitenti-viridibus oblecto; rostro forti, paulum incurvo.

Total, length, 4in. Alae,  $2\frac{6}{8}$ . Candae,  $1\frac{5}{8}$ . Rostri,  $\frac{9}{8}$ .

Obs. Sp. *Th. viridicipiti*, Gould, ut videtur, affinis rostro fortiusculo, canda aequali, et maculis gutturis minutis insignis. "Selat, loc. cit."

This species was discovered at Guajungo, Peru, by Mess. Stolzmann and Jelski.

230. URANOMITRA COLUMBIANA, Boucard, Hum. Bird, 1892, p. 82.

*Columbian Emerald.*

*La Leucolie de Colombie.*

*Habitat*.—Columbia.

*Male*.—Head and sides of neck metallic green. Upperside golden-green. Median rectrices bronze. Lateral purplish-bronze, with a wide subterminal brownish-black bar. Throat, centre of addomen, anal region, and undertail-coverts white. Flanks golden-green. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{6}{8}$ in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Head and back bronzy-green, passing to reddish-golden on rump and uppertail-coverts. Tail bronze, lateral bronze with a subterminal brownish-black bar, and gray tips. Throat, centre of abdomen, lower part of vent and undertail-coverts white. Sides of neck and breast shining green. Flanks golden-green. Bill like the male. Same size as male.

Types of both sexes in my collection.

This species is closely allied to *U. niveipectus*, but can be easily distinguished by the colour of mandible.

231. URANOMITRA MILLERI, Bourc. P.Z.S., 1847, p. 43.

*Polytmus milleri*, Gray, Gen. Birds, vol. i., p. 108.

*Thaumantias milleri*, Bon., Consp. Gen. Av., 1850, vol. i, p. 78.

*Agyrtria milleri*, Reich., Aufz. der Col., 1853, p. 10.

*Leucolia milleri*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 225.

*Miller's Emerald*, Gould, Mon. Troch., vol v., p. 296.

*La Leucolie de Miller*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 226.

*Habitat*.—Columbia.

*Male*.—Head and sides of neck metallic green. Upperside bronzy-green passing to golden on rump and uppertail-coverts. Median rectrices pale bronze, lateral grayish-bronze with a wide subterminal brownish-black bar. Underside white, washed with green on sides of breast, and on flanks. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{2}{3}$  in. Wing, 2. Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Forehead dark shining green. Rest of upperside bronze-green slightly golden on rump and uppertail-coverts. Tail bronze with a wide subterminal blackish bar on lateral feathers, which have gray tips. Underside like the male with less green on flanks. Undertail-coverts whitish-gray.

It resembles *U. viridiceps*, but is a much smaller species. According to Bourcier, it was discovered by Natterer, on Rio Negro.

232. URANOMITRA WHITELYI, Boucard, Hum. Bird, 1893, vol. iii., p. 8.

*Whitely's Emerald*.

*La Leucolie de Whitely*.

*Habitat*.—Annai (B. Guiana).

*Male*.—Head and sides of neck metallic green. Upperside bronze-green. Median rectrices bronze, lateral bronze, with a subterminal blackish bar. Throat, breast, and abdomen pure white. Flanks golden-green. Undertail-coverts white, with centre pale gray. Wings purplish-brown. Bill black.

Total length,  $3\frac{3}{8}$  in. Wing, 2. Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{5}{8}$ .



*Female*.—Head and sides of neck shining green, but not so brilliant as in the male. Upperside bronze-green. Underside white. Flanks white, washed with green. Tail bronze, lateral with a brown subterminal bar and tips margined with gray.

This new species, discovered by Mr. Henry Whately in British Guiana, is closely allied to *U. milleri*, but can be distinguished easily from that species, by its black bill.

Types in Boucard's Museum.

233. URANOMITRA NIVEIPECTUS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 33.

*Thaumatias chionopectus*, Gould, Mon. Troch., 1859, p. 5.

*Polytmus chionopectus*, Léotard, Ois. Trinid., 1866, p. 140.

*Snowy-throated Emerald*, Gould, Mon. Troch., vol. v., p. 293.

*La Leucolie à poitrine d'un blanc de neige*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 228.

*Habitat*.—Trinidad.

*Male*.—Head and sides of neck metallic golden-green in some specimens, in others metallic green. Upperside shining coppery-green, more coppery on rump and uppertail-coverts. Tail purplish-bronze, with a wide subterminal purplish-brown bar on lateral feathers. Throat and centre of abdomen pure white. Bar in middle of breast and flanks golden-green. Undertail-coverts greyish with white margins. Wings purplish-brown. Bill black.

Total length  $3\frac{3}{4}$  in. Wing, 2, Tail,  $1\frac{2}{3}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside shining bronze green. Uppertail-coverts coppery. Underside white, washed with green on sides of neck, on breast and flanks. Tail beneath bronze passing to brownish-black, with gray tips on lateral feathers. Bill black. Same size as male.

Rather common in Trinidad.

GENUS LXVII. **Cyanomyia**, Bon., Rev. and Mag., Zool., 1854, p. 254.

*Leucolia*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 211.

TYPE: *T. cyanocephala*, Lesson.

Bill straight, acutely pointed, longer than the head, broad at base. Wings long, narrow, nearly reaching the end of tail.

Tail slightly forked. Median rectrices slightly smaller than the next ones, which are also slightly smaller than the three others. These of same length. Tarsi partly clothed. Sexes alike.

*Habitat*.—Mexico and Central America.

234. *CYANOMYIA CYANOCEPHALA*, Lesson, Suppl. Ois. Mou., 1831, p. 134.

*Polytmus verticalis*, Gray, Gen. Birds, vol. i., p. 109.

*Uranomitra cyanocephala*, Reich., Aufz. der Col., 1853, p. 10.

*Agyrtria faustinae*, Reich., Troch. Enum., 1855, t. i., p. 7

*Cyanomyia guatemalensis*, Gould, Int. Troch., 1861, p. 148.

*Uranomitra lessoni*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 41.

*Leucolia cyanocephala*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 219.

*Black-billed Azure Crown*, Gould, Mon. Troch., vol. v., p. 286.

*La Leucolie à calotte d'azur*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 220.

*Habitat*.—Mexico and Guatemala.

*Male*.—Top of head metallic blue with greenish reflections in certain lights. Upperside bronzy-green, passing to bronzy-brown on lower part of back and uppertail-coverts. Tail pale green-bronze. Throat, middle of breast, and abdomen white. Sides of neck, breast and flanks pale bronzy-green. Undertail-coverts pale bronze, edged with grayish-white. Maxilla black. Mandible flesh colour with black tip. Wings purplish-brown.

Total length, 4in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Exactly like the male, but the green on sides of breast and flanks, slightly paler.

235. *CYANOMYIA QUADRICOLOR*, Vieillot, Enc. Méth., t. iii., p. 573.

*Polytmus quadricolor*, Gray, Gen. Birds, vol. i. p. 119.

*Trochilus verticalis*, Licht. Preis. Verz., Thier., 1830.

*Uranomitra quadricolor*, Reich., Aufz. der Col., 1853, p. 10.

*Leucolia quadricolor*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 215.

*Uranomitra ellioti*, Berl., P.U.S., Nat. Mus., vol. xi., p. 562.

*Red-billed Azure Crown*, Gould, Mon. Troch., vol. v., p. 284.

*La Leucolie quadricolore*, Muls., Hist. Nat. Ois., Mou., 1874, t. i., p. 216.

*Habitat*.—Mexico.

*Male*.—Top of head metallic blue. Upperside pale bronzy-brown. Tail shining bronzy-green. Underside pure white, tinged on sides of neck, breast, and flanks with some few bluish feathers. Wings purple-brown. Bill coral red, with black tips.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{7}{8}$ .

236 CYANOMYIA VIOLICEPS, Gould, Ann. Mag. Nat. Hist., 1859, p. 97.

*Uranomitra violiceps*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 41.

*Leucolia viridiceps*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 213.

*Violet Crown*, Gould, Mon. Troch., vol. v., p. 285.

*La Leucolie à calotte violette*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 214.

*Habitat*.—S. Mexico.

*Male*.—Differs only from *C. quadricolor* by the colour of its tail, which is bronzy-red, and by the feathers on sides of neck, breast, and flanks, which are greenish.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

This species was discovered by me, in 1857, at Oaxaca, South Mexico. It is rare in the collections.

\*237. CYANOMYIA VIRIDIFRONS, Elliot, Ann. and Mag., Nat. Hist., 1871, vol. viii., p. 267.

*Green-fronted Crown*, Gould, Mon. Troch., Suppl., 1886, p. 72.

*La Leucolie à front vert*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 224.

*Habitat*.—Putla, (S. Mexico).

*Male*.—Differs only from *C. violiceps* by the colour of forehead, which is dark green, metallic in some lights.

It was discovered by my traveller, Eugène Rebouch.

The type is now in the New York Natural History Museum.

238. *CYANOMYIA GUERRERENSIS*, Salv. and Godm., Biol. cent. ameri., 1892.

*Guerrero Green Crown.*

*La Leucolie de Guerrero.*

*Habitat*.—Guerrero, Mexico.

This new species is very nearly allied to *C. viridifrons*, so much so, in fact, that I am of opinion that both belongs to the same species; I have one specimen, from Mazatlan, collected by Mr. Forrer, which I can only refer to that species. The type specimen of *C. viridifrons*, was collected at Putla, which is close to the state of Guerrero. It is therefore probable that it is found all over the Mexican west coast, from Tehuantepec to Mazatlan, and even more north.

The specimens from which Mon. Salwin and Godm described the species, were collected by Mrs. Smith.

\*239. *CYANOMYIA MICRORHYNCHA*, Elliot, Ibis, 1876, p. 316.

*Small-billed Azure Crown*, Gould, Mon. Troch., Suppl., 1886, p. 72.

*La Leucolie à petit bec.*

*Habitat*.—Honduras?

*Adult*.—Top of head and occiput dark metallic blue. Hind neck and mantle shining metallic green; rest of upperparts bronzy-red. Throat, upper part of breast, and centre of abdomen white, with a few metallic green feathers scattered among the white ones. Flanks and undertail-coverts metallic bronzy-red. Wings deep brown, slightly shaded with purple. Tail brilliant metallic bronze.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{1}{2}$ . "Elliot, l.c."

Type in the New York Museum of Natural History.

GENUS LXVIII. **Leucippus**, Bon., Compt. Rend., 1850, p. 382.

*Talaphorus*, Muls., Hist. Nat. Ois. Mou., t. i., p. 257.

TYPE: *T. chionogaster*, Tschudi.

Bill longer than the head, narrow and rounded at base, nostrils exposed. Wings long and pointed, reaching the end of tail. Tail rounded, all the retrices of same length. Tarsi clothed to the toes. Sexes alike, dull.

*Habitat*.—Amazons, Peru, and Bolivia.

240. LEUCIPPUS CHIONOGASTER, Tsch. Faun. Per., 1844, p. 247.

*Trochilus turneri*, Bourc., Rev. Zool., 1846, p. 113.

*Polytmus chionogaster*, Gray, Gen. Birds, vol. i., p. 108.

*Thaumatias leucogaster*, Bon., Consp. Gen. Av., 1850, vol. i., p. 78.

*Leucippus pallidus*, Tacz., P.Z.S., 1874, p. 542.

*White-breasted Leucippus*, Gould, Mon. Troch., vol. v., p. 290.

*Le Leucippe à ventre blanc de neige*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 259.

*Habitat*.—Peru, and Bolivia.

*Male*.—Upperside pale bronzy-green. Tail feathers bronzy-green, with inner webs and shafts of lateral ones white. Underside pure white, sides of breast and flanks washed sparingly with pale green feathers edged with white. Maxilla black. Mandible flesh colour, with black tips.

Total length, 4in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen, 1.

It is a rare species. My specimens were collected by MM. Buckley and Garlepp.

241. LEUCIPPUS CHLOROCERCUS, Gould, P.Z.S., 1866, p. 194.

*Spotted White-throat*, Gould, Mon. Troch., Suppl., 1886, p. 73.

*Le Leucippe à queue verte*, Muls., Hist., Nat. Ois. Mou., 1874, t. i., p. 258.

*Habitat*.—Upper Amazons and Peru.

This species resembles closely the preceding one. It differs in having the tail shining pale greenish-bronze with a faint subterminal bar of darker green, and gray tips. Bill shorter than in *L. chionogaster*, and all black.

Total length, 4in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

I have only one specimen of this rare species collected by Hauxwell, at Nauta, in 1883.

GENUS LXIX. **Lencochloris**, Reich., Aufz. der Col., 1853,  
p. 10.

TYPE: *T. albicollis*, Vicillot.

Bill straight, longer than the head, wide at base, feathers of the forehead projecting slightly on the culmen, hiding the nostrils. Wings long, reaching the end of tail. Tail rounded, rectrices, including the median, even, excepting the outermost ones, which are very narrow, reaching the third of white tip of next one. Tarsi clothed. Sexes alike.

*Habitat*.—Brazil.

242. **LEUCOCHLORIS ALBICOLLIS**, Vieill., Nouv. Dict. Hist. Nat., 1818, t. xxiii., p. 426.

*Ornismyia albicollis*, Less., Ois. Mou., 1829, p. 184.

*Colibri albogularis*, Spix., Av. Bras., 1825, t. i., p. 81.

*Basilinna albicollis*, Less., Ind. Gen. and Syn. Ois., 1831, p. 25.

*Polytmus albicollis*, Gray, Gen. Birds, vol. i., p. 108.

*Thaumatias albicollis*, Bon., Consp. Gen. Av., 1850, vol. i., p. 78.

*Leucippus albicollis*, Reich., Troch. Enum., 1855, p. 8.

*Agyrtria albicollis*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 32.

*White-throat*, Gould, Mon. Troch., vol. v., p. 291.

*Le Leucochlore albicolle*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 262.

*Le Leucochlore à gorge blanche*.

*Habitat*.—Brazil.

*Male*.—Upperside shining golden-green. Median rectrices bronze-green, lateral bluish-black with white tips, outermost one bluish-black for half its length, the rest white. Chin, breast, and flanks shining green. Throat, abdomen, and undertail-coverts pure white. Wings purplish-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside golden-green. Median rectrices greenish-bronze with blue reflections, rest bluish-black with white tips. Chin white, spotted with minute greenish feathers.



Throat, abdomen, and undertail-coverts white. Breast and flanks shining green. Slightly smaller than the male.

GENUS LXX. **Aithurus**, Cab. and Hein., Mus. Hein., 1860, vol. iii., p. 50.

PHAETHORNIS, Less., Tab. Esp., Ois. Mou., 1829, p. 18.

POLYTMUS, Less., Ind. Gen., Syn. Gen., Troch., 1832, p. 16.

TROCHILUS, Gray, Gen. Birds, 1840, p. 14.

TYPE: *T. polytmus*, Linné.

Bill curved, wide at base, longer than the head. Rectrices narrow and pointed. Lateral, next the outermost one lengthened nearly three times that of the others. Tail deeply forked. Head crested, with elongated feathers on each side. Sexes unlike.

*Habitat*.—Jamaica.

243. AITHURUS POLYTMUS, Lin., Syst. Nat., 1766, vol. i., p. 189.

*Bourdonneur du Mango*, à longue queue, Abin., t. iii., p. 20, p. 49, fig. a.

*Oiseau Mouche à longue queue noire*, Sonn., Ed. de Buff., Hist. Nat., t. xvii., p. 215.

*Mellisuga Jamaicensis*, Briss. Ois., t. iii., p. 729.

*Mellivora avis maxima*, Sloane, Journ., vol. ii., p. 309, fig. 4.

*Trochilus polytmus*, Lin. Syst. Nat., Edit. 10, t. i., p. 120.

*Black-capped Humming-bird*, Lath., Gen. Syn., vol. ii., p. 748.

*Colibri à tête noire*, Vieill., Ois. Dor., t. i., p. 121, fl. 67.

*Ornismya cephalatra*, Less., Ois. Mou., p. 78, p. 17.

*Long-tailed black-capped Humming-bird*, Edwards' Birds, vol. i., p. 34.

*Trochilus maria*, Hill., Ann. Mag. Nat. Hist., 1849, vol. iii., p. 258.

*Polytmus cephalatra*, Bon., Consp. Gen. Av., 1850, p. 72.

*Black-capped Humming-bird*, Gould, Mon. Troch., vol. ii., p. 98.

*l'Aithure à tête noire*, Muls., Hist. Nat., Ois. Mou., 1874, vol. i., p. 336.

*Habitat*.—Jamaica.

*Male*.—Crown with elongated feathers, velvety-black. Upperside dark green. Throat and the whole of underside bright green. Undertail-coverts blue-black. Tail black. Wings brown. Bill red with black tips.

Total length, 9in. Wing,  $2\frac{5}{8}$ . Tail,  $6\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Head brown. Upperside shining green. Underside white, tinged with green on the sides and flanks. Median rectrices bronze-green, lateral bronze-green on outer web, remainder bluish-black, tipped white on the two outermost ones. Upper mandible nearly all black. Lower mandible red with black tip.

Total length,  $3\frac{7}{8}$ in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

Common in Jamaica.

GENUS LXXI. **Eupherusa**, Gould, Mon. Troch., 1857, part xiv.

TYPE :—*O. eximia*, Delattre.

Bill longer than the head, slightly curved. Wing long, reaching the end of tail. Tail even, with the exception of the outermost rectrice, which is slightly shorter than the others. Tarsi clothed. Hind toe shorter than the middle one. Sexes unlike.

*Habitat*.—Mexico and Central America.

244. EUPHERUSA EXIMIA, Del., Echo du Monde. sav., 1843, p. 1069.

*Saucerottia eximia*, Reich., Aufz. der Colib., 1853, p. 8.

*Amazilia eximia*, Reich., Troch. Enum., 1855, p. 8.

*Stripe-tail*, Gould, Mon. Troch., vol. v., p. 324.

*l'Euphéruse remarquable*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 272.

*Habitat*.—Guatemala.

*Male*.—Upperside golden-green, darker on head. Median rectrices dark bronze-green, nearly black on edges and tips, the two outermost ones on each side of inner webs white for

about two-thirds of their length, the rest bluish-black. Under-side luminous metallic, grass-green in some specimens, in others golden-green. Undertail-coverts white. Base of primaries and secondaries chestnut-red, rest purplish-black. Bill black. Feet flesh colour.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Upperside golden-green. Underside grayish-white, washed sparingly with green, on sides of breast and flanks. Outermost feathers white for nearly their whole length.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{11}{16}$ .

Very abundant in Guatemala, where it was discovered by Delattre.

\*245. EUPHERUSA POLIOCERCA, Elliot, Ann. and Mag., Nat. Hist., 1871, p. 266.

*Gray Stripe-tail*, Gould, Mon. Troch., Suppl., 1886, p. 84.

*l'Euphéruse à quene blanche*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 271.

*Habitat*.—Putla, South Mexico.

*Male*.—Exactly the same as the preceding species, from which it differs only in having the three outermost rectrices white, with purplish-gray on the edges of outer webs and tips.

It was collected by my traveller, Eugène Reibouch, at Putla.

I killed that species several years before in Chinantla, Oaxaca; but I do not know what became of my specimens. Probably they were sold as *E. eximia*.

246. EUPHERUSA EGREGIA, Sclat. and Salv., P.Z.S., 1868, p. 389.

*Panama Stripe-tail*, Gould, Mon. Troch., Suppl., 1886, p. 85.

*l'Euphéruse distinguée*, Muls., Hist. Nat. Ois. Mou., 1876, t. i., p. 274.

*Habitat*.—Costa Rica, Veragua.

*Male*.—Exactly the same as *E. eximia*, and probably the same species. The only difference which I can see in the specimens which I collected in Costa Rica, and others received

from Veragua, is that the two outermost rectrices on each side of tail are white, to a longer extent than in *E. eximia*, margined and tipped with bluish-black.

GENUS LXXII. **Callipharus**, Elliot, Syn. H. Birds, 1879, p. 211.

CLOTHO, Muls., Cat. Ois. Mou., 1875, p. 9, (name already employed).

TYPE :—*E. nigriventris*, Lawrence.

Bill about as long as the head, straight, wide at base, graduating to a point at the tip. Frontal feathers not projecting on the culmen. Wings long and broad for their length. Tail moderate, slightly rounded. Undertail-coverts reaching half the length of the rectrices. Feet small. Tarsi partly clothed. Sexes entirely unlike. "Elliot, loc. cit."

*Habitat*.—Costa Rica and Veragua.

247 CALLIPHARUS NIGRIVENTRIS, Lawr., Proceed. Acad. Nat. Scien., Phil., 1867, p. 232.

*Eupherusa (Clotho) nigriventris*, Muls., Cat. Ois. Mou., 1875, p. 9.

*Thaumatias nigriventris*, Sclat and Salv., Nomencl., 1873, p. 92.

*Black-bellied Humming-bird*, Gould, Mon. Troch., Suppl., 1886, p. 83.

*l'Euphéruse à ventre noir*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 270.

*Habitat*.—Costa Rica and Veragua.

*Male*.—Forehead jet-black. Upperside golden-green. Four central rectrices dark greenish-bronze, the rest pure white tipped with brownish-black. Wing-coverts golden-green. Secondaries chestnut with purple tips, rest purplish. Underside jet-black. Flanks washed with bronze feathers. Vent and undertail coverts white. Bill and feet black.

Total length, 3in. Wing, 2. Tail,  $1\frac{2}{3}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy-green. Median rectrices dark greenish-bronze, tipped black, remainder white. Underside ashy-gray. Wing like that of male. Bill black. Same size as male.

This rare and peculiar species was discovered in Veragua. by Mr. Endrés.

I have killed it at Naranjo, Costa Rica, in April, 1877.

My other specimens were collected in Veragua by Arce.

GENUS LXXIII. **Elvira**, Muls. and Verr., Class, Troch., 1865, p. 32.

TYPE: *T. chionurus*, Gould.

Bill shorter than the head, straight, with tip slightly curved. Nostrils slightly exposed. Wings narrow, pointed, longer than the tail. Tail slightly rounded. Tarsi clothed. Sexes unlike.

*Habitat*.—Costa Rica and Veragua.

248. ELVIRA CHIONURA, Gould, P.Z.S., 1850, p. 162.

*Leucippus chionurus*, Reich., Aufz. der Col., 1853, p. 11.

*Thaumantias chionura*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Elvira chionura*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 266.

*White-tailed Emerald*, Gould, Mon. Troch., vol. v., p. 300.

*l'Elvire à queue d'un blanc de neige*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 267.

*Habitat*.—Costa Rica and Veragua.

*Male*.—Upperside shining golden-green, sometimes dark green. Median rectrices bronzy-green, lateral white with black tips. Underside metallic emerald-green with golden reflections. Centre of abdomen and undertail-coverts pure white, some bronze feathers on undertail-coverts feathers in some specimens. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{2}{8}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside shining-green. Median rectrices bronzy-green, the one next to it on each side, bronze-green with black tips, remainder white with subterminal black bar, and white tips. Underside grayish-white with green feathers on sides of breast and flanks. Wings purple-brown. Bill black.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{5}{8}$ .

This species was discovered in Veragua, by Mr. Warszewicz.

My specimens were collected in the same country, by Arce; others I collected in Costa Rica. These appear to be slightly smaller than the specimens from Veragua, but I don't think they can be separated.

GENUS LXXIV. **Lawrencius**, n.g.

TYPE :—*P. cupreiceps*, Lawrence.

Bill about the length of the head, strongly curved, graduating to a very acute point. Wings long, reaching the end of tail. Tail rounded. Median and outermost rectrices wide, slightly shorter than the others. Feet large for the size of the bird. Tarsi partly clothed. Nostrils partly exposed. Sexes unlike.

*Habitat*.—Costa Rica.

249. LAWRENCIUS CUPREICEPS, Lawr., Ann., N.Y., Lyc. Nat. Hist., 1866, vol. viii., p. 348.

*Thaumatias cupreiceps*, Sclat. and Salv., Nomencl., 1873, p. 92.

*Elvira cupreiceps*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 268.

*Copper Crown*, Gould, Mon. Troch., Suppl., 1886, p. 82.

*l'Elvire à tête cuivreuse*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 268.

*l'Elvire de Lawrence*.

*Habitat*.—Costa Rica.

*Male*.—Top of head metallic bronze at base of maxilla, then shining coppery. Upperside golden-green. Uppertail-coverts coppery-red. Median rectrices shining bronze with reddish reflections, lateral pure white with a tinge of grayish margin at tips. Underside luminous metallic emerald-green with golden reflections. Anal region and thighs white. Wings purplish-brown. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{2}{3}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{2}{3}$ . Culmen,  $\frac{5}{16}$ .

*Female*.—Upperside shining green. Slightly coppery on head. Uppertail coverts coppery. Median rectrices shining



bronze. Lateral, white, with a slight blackish subterminal bar near the tips. Underside white with a grayish tint, and green feathers on sides of throat, neck, breast, abdomen, and flanks. Rest like the male.

Total length,  $3\frac{2}{8}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{5}{16}$ .

This beautiful and rare species was discovered in Costa Rica, by M. Carmiol. The type is in the National Museum of Washington.

I found this species at Naranjo, Costa Rica, on the Atlantic slope.

It is very rare.

I have made a new genus with this remarkable species, which I dedicate to Mr. Lawrence, the celebrated American Ornithologist.

GENUS LXXV. **Polytmus**, Brisson., Ornith., 1760.

*Thaumatias*, Bon., Compt. Rend., 1850, p. 382.

*Chrysobronchus*, Bon., Rev. and Mag. Zool., 1854, p. 252.

TYPE: *T. thaumantias*, Linné.

Bill much longer than the head, slightly curved, wide at base, and graduating to a point. Nostrils exposed. Wings long, reaching nearly the end of the tail. Rectrices narrow, of unequal length, rounded at tip.

*Habitat*.—Trinidad, Venezuela, Guiana, Columbia and Brazil.

250. POLYTMUS THAUMANTIAS, Linné, Syst. Nat., 1766, vol. i., p. 489.

*Trochilus virescens*, Dumont, Dict., Sc. Nat., 1818, p. 49.

*Ornismya viridis*, Less., Ois. Mou., 1829, p. 178.

*Leucippus chrysobronchus*, Reich., Aufz. der Col., 1853, p. 11.

*Thaumantias linnei*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Chrysobronchus virescens*, Bon., Rev. and Mag. Zool., 1854, p. 252.

*Golden-throated Humming-bird*, Gould, Mon. Troch., vol. iv., p. 230.

*Le Chrysobronche à queue blanche and verte*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 277.

*Habitat*.—Trinidad, Columbia, Venezuela, Guiana and Brazil.

*Male*.—Upperside golden-green. Underside metallic yellowish-green. In some specimens from Bahia, the underside is of the most brilliant golden. A tuft of white feathers on each side of anal region. Undertail-coverts shining green, edged with white. Median rectrices shining green with the internal edges whitish for about half their length, lateral ones having a stripe of white on the outer web and tips white, outermost ones green for about two-thirds of their length on inner web, rest white. In some specimens the outer webs and tips are white, the rest is shining green. Maxilla sometimes black, sometimes light brown. Mandible flesh colour with black tips. Wings purplish-brown.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—I am not certain that the female is of the same colouration as the male. I have several specimens which I consider as females. Here is the description:—Upperside golden-green. Throat and breast whitish, speckled with many metallic golden-green feathers. Abdomen and flanks pale rufous. Undertail-coverts white. Median rectrices bronze-green, slightly tipped white, lateral bronze-green for about two-thirds of their length, the rest white.

251. *Polytmus viridissimus*, Vieill., Ois. Dor., t. i., p. 84.

*Ornismya viridis*, Less. Troch., 1831, p. 96.

*Trochilus theresiæ*, Da Silva., Mai. Min. Bras., 1843, p. 2.

*Amazilia viridissima*, Bon., Consp. Gen. Av., 1850, vol. i., p. 77.

*Smaragditis viridissima*, Reich., Aufz. der Col., 1853, p. 7.

*Chrysobronchus viridissimus*, Bon., Rev. and Mag. Zool., 1854, p. 252.

*Chlorestes viridissimus*, Reich., Troch. Enum., 1855, p. 4.

*Thaumatias chrysurus*, Burm., Th. Bras., 1856, t. ii., p. 345.

*Green-tailed Humming-bird*, Gould, Mon. Troch., vol. iv., p. 231.

*Le Chrysobronche tout vert*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 280.

*Habitat*.—Guiana and Venezuela.

*Male*.—Upperside bronze-green. Underside shining grass-green in some, and metallic golden-green in others. Tail and undertail-coverts metallic grass-green. Maxilla black. Mandible flesh colour at base, the rest black. Wings purplish-black.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside bronzy-green. Underside golden-green washed with whitish gray. Lateral feathers of tail tipped white. Undertail-coverts shining green edged with white. Rest of plumage like that of male.

252. *Polytmus leucorrhous*, Sclat. and Salv., P.Z.S., 1867, p. 584.

*Polytmus leucoproctus*, Gray, Handl. Birds, p. 128.

*Chrysobronchus leucorrhous*, Sclat and Salv., Nomenclator, p. 89.

*White-vented Golden-throat*, Gould, Mon. Troch., Suppl., p. 86.

*Le Chrysobronche à sous caudales blanches*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 281.

*Habitat*.—Rio Negro (Brazil) and Peru.

*Male*.—Exactly like the preceding species from which it differs only by the forehead, which is brown, and the undertail-coverts pure white.

*Female*.—Differs by the outertail feathers tipped white. This rare species was discovered by the celebrated Naturalist, Mr. A. Wallace.

GENUS LXXVI. **Doleromyia**, Bon., Rev. and Mag. Zool., 1854, p. 249.

*Dolerisca*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 6.

TYPE: *T. fallax*, Bourcier.

Bill longer than the head, straight, broad, and flat at base. Wings long, primaries rather broad, the first slightly pointed. Tail even, feathers broad and very slightly pointed. Feet large, tarsi partly feathered. Sexes alike.

*Habitat*.—Venezuela.

253. *DOLEROMYIA FALLAX*, Bourc., Rev. Zool., 1843, p. 103.  
*Lampornis fulviventris*, Gould, P.Z.S., 1846, p. 88.  
*Polytmus fallax*, Gray, Gen. Birds, vol. i., p. 108.  
*Leucippus fallax*, Bon., Consp. Gen. Av., 1850, p. 73.  
*Dolerisca fallax*, Cab. and Hein., Mus. Hein., 1860, t. iii.  
p. 6.

*Dolerisca cervina*, Gould, Int. Troch., 1861, p. 56.  
*Buff-breasted Leucippus*, Gould, Mon. Troch., vol. ii., p. 56.  
*La Doleromye trompeuse*, Muls., Hist. Nat. Ois. Mou., 1874,  
t. i., p. 206.

*Habitat*.—Venezuela.

*Male*.—Upperside olive-green tinged with gray. Median rectrices bronzy-green, lateral bronze green at base with a subterminal brownish-black bar and largely tipped with white. Throat, breast, and abdomen pale reddish-buff. A tuft on each side of anal region, and undertail-coverts white. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 4in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

It is a rare species.

GENUS LXXVII. **Basilinna**, Boié, Isis, 1831, p. 546.

*Heliopedica*, Gould, Int. Troch., 1861, p. 60.

TYPE: *T. leucotis*, Vieillot.

Bill straight, about the length of the head. Wings long, reaching the end of tail. Tail nearly even, slightly forked, rectrices broad. Tarsi clothed, hind toe shorter than the middle one. Sexes unlike.

*Habitat*.—California, Mexico, and Guatemala.

254. *Basilinna leucotis*, Vieill., Nouv. Dict. Hist. Nat., t. xxii.  
p. 428.

*Trochilus melanotis*, Sw., Phil. Mag., 1827, p. 441.

*Ornismya arsenii*, Less., Ois. Mou., 1829, p. 60.

*Hylocharis leucotis*, Gray, Gen. Birds, vol. i., p. 114.

*Heliopoedica melanotis*, Gould, Mon. Troch., vol. ii., p. 64.

*Thaumatias leucotis*, Bon., Consp. Gen. Av., 1850, p. 78.

*Sapphironia lucida*, Sclat., P.Z.S., 1858, p. 207.

*Coeligena leucotis*, Muls., Hist. Nat. Ois. Mou., t. i., p. 187.

*Black-eared Humming-bird*, Gould, Mon. Troch., vol. ii., p. 65.

*Le Coeligène à oreilles blanches*, Muls., Hist. Nat. Ois. Mou., t. i., p. 188.

*Habitat*.—Mexico and Guatemala.

*Male*.—Forehead and chin dark metallic sapphire-blue. Upperside bronzy-green, reddish and darker on neck. Feathers on rump tinged with rufous. Throat and breast metallic emerald-green. Abdomen and flanks shining-green washed with gray. Undertail-coverts grayish-brown with centre greenish-brown. Wings purple. Median rectrices bronze-green, lateral black with external edges and tips bronze. Bill flesh colour with black tips, more conspicuous on maxilla. A tuft of white feathers on each side of anal region.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronze-green, slightly rufous on forehead. Underside pale gray, washed with green feathers on throat, sides of breast and flanks. Rectrices like that of male, lateral ones tipped with grayish-white. Maxilla black. Mandible flesh colour with black tip. Ear-coverts black. A white line above and behind the eye.

This species is rather abundant in Mexico, where I have collected many specimens of both sexes. I have also one specimen from Guatemala, where it is a rare species.

\*255. *BASILINNA XANTHUSI*, Lawr., Ann. Lyc., Nat. Hist. N. Y., 1860, p. 109.

*Heliopaedica castaneo-cauda*, Lawr., Ann. Lyc., Nat. Hist. N. Y., 1860, p. 145.

*Heliopoedica xanthusi*, Gould, Mon. Troch., vol. ii., p. 64.

*Coeligena xanthusi*, Muls., Hist. Nat. Ois. Mou., t. i., p. 190.

*Xanthus Humming-bird*, Gould, Mon. Troch., vol. ii., p. 65.

*Le Coeligène de Xanthus*, Muls., Hist. Nat. Ois. Mou., t. i., p. 190.

*Habitat*.—Cape St. Lucas (California).

*Male*.—Differs from *B. leucotis*, in having the underside rufous. Throat pale grass-green. Tail dark chestnut, tipped with bronze. Bill flesh colour, with black tips.

Total length,  $3\frac{3}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside shining green. Front and entire underside rufous. Median rectrices green, lateral rufous, with black spots on the webs near the tips.

This extremely rare species was discovered in California by Mr. John Xanthus. It was dedicated to him by Mr. Lawrence, of New York. The type is in the collection of the Smithsonian Institution.

GENUS LXXVIII. **Timolia**, Muls., Cat. Ois. Mou., 1875, p. 23.

TYPE: *T. lerchi*, Mulsant and Verreaux.

Allied to the genus *Eucephala*. Bill longer than the head, curved. Feathers of forehead projecting on the culmen. Nostrils hidden. Tail forked. Tarsi clothed.

*Habitat*.—Columbia.

\*256. TIMOLIA LERCHI, Muls. and Verr., Ann. Linn. Soc., Lyon., 1868.

*Eucephala lerchi*, Muls. and Verr., Hist. Nat. Ois. Mou., 1878, t. iv., p. 191.

*Lerch's Sapphire*, Gould, Mon. Troch., Suppl., 1886, p. 94.

*L'Eucéphale de Lerch*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 192.

*Habitat*.—Columbia.

*Male*.—Fore part of head and a spot on the chin shining deep blue. Upper parts dark grass-green, passing into reddish-bronze on the upper tail-coverts. Entire underparts grass-green. Undertail-coverts olive-green. Wings purplish-brown. Tail steel-black. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $1\frac{3}{16}$ . "Elliot, loc. cit."

Type unique in the collection of the Museum of Natural History of New York. "Ex. Elliot's Collection."

This remarkable species was discovered in Columbia by Doctor Lerch, to whom it was dedicated by MM. Mulsant and Verreaux.



GENUS LXXIX. **Eucephala**, Reich., Aufz. der Col., 1853,  
p. 10.

*Ulysses*, Muls., Cat. Ois. Mou., 1875, p. 12.

TYPE: *T. grayi*, Delattre and Bourcier.

Bill longer than the head, rather broad at base, sharply pointed at tip, nostrils exposed. Wings long and pointed, reaching the end of tail. Tail slightly forked, rectrices broad. Tarsi clothed. Sexes unlike.

*Habitat*.—Ecuador, Columbia.

257. EUCEPHALA GRAYI, Delatt. and Bourc., Rev. Zool., 1846,  
p. 307.

*Hylocharis grayi*, Gray, Gen. Birds, vol. i., p. 115.

*Sapphironia grayi*, Bon., Rev. and Mag. Zool., 1854, p. 256.

*Ulysses grayi*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 41.

*Blue-headed Sapphire*, Gould, Mon. Troch., vol. v., p. 330.

*l'Ulysse de Gray*, Muls., Hist. Nat. Ois., Mou., 1875, t. ii.,  
p. 42.

*Habitat*.—Ecuador and Columbia.

*Male*.—Head and chin deep metallic prussian-blue. Upperside shining green, golden in some specimens. Tail steel-blue. Throat, breast, abdomen and flanks metallic emerald green. Undertail-coverts shining green, edged with grayish-white. Wings purple-brown. A tuft of white feathers on each side of anal region. Maxilla flesh colour at base, rest black. Mandible flesh colour with black tips.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside golden-green. Tail bronzy-green at base with bluish edges. Tips spotted with grayish-white. Underside grayish-white, speckled with bronzy-green feathers on throat, breast, and flanks. Undertail-coverts shining green, edged with gray. Bill flesh colour at base, rest black. Mandible flesh colour with black tip. Same size as male.

This beautiful species was discovered by Delattre, at Popayan (Columbia), and was dedicated to the late Mr. John Gray, who was, for a long time, Curator of the Zoological Department of the British Museum.

I have in my collection three typical specimens, male and

female, collected by Delattre (Ex Collection Bourcier), and several specimens collected by Buckley in Ecuador.

GENUS LXXX. **Chlorestes**, Reich., Aufz. der Col., 1853,  
p. 7.

HALIA, Muls. and Verr., Cat. Ois. Mou. 1875, p. 12.

TYPE: *Tcyanogenys*, Wied.

Bill straight, about the length of the head, rather broad at base, sharply pointed. Nostrils exposed. Wings long and pointed, reaching nearly the end of tail. Tail rounded, rectrices narrow, outermost one slightly shorter than the others. Feet small. Tarsi clothed. Sexes unlike.

*Habitat*.—Trinidad, Venezuela, Guiana, Brazil, Ecuador, and Peru.

\*258. **CHLORESTES CYANOGENYS**, Max Wied, Beit. (1825-33),  
t. iv., p. 10.

*Ornismya wiedi*, Less., Suppl. Ois. Mou., 1829, p. 150.

*Hylocharis cyanogenys*, Gray, Gen. Birds, vol. i, p. 115.

*Saucerottia cyanogenys*, Reich., Aufz. der Col. 1853, p. 7.

*Eucephala cyanogenys*, Gould, Int. Troch., 1861, p. 167.

*Blue-faced Sapphire*, Gould, Mon. Troch., Suppl. 1886, p. 93.

*l'Eucephale de Wied*, Muls., Hist. Nat. Ois. Mou., 1878,  
t. iv., p. 190.

*Habitat*.—Brazil.

*Male*.—Maxilla and feet black, the mandible flesh colour with black tips. Upperpart golden-green with reddish-bronze reflections. Primaries purplish-brown. Tail dark steel-blue with blue and golden reflections. Chin beautiful blue as in *E. caerulea*. Anal region white.

Total length about 3in. Wing,  $1\frac{1}{16}$ . Tail,  $\frac{7}{8}$ . Bill,  $\frac{5}{8}$ .

*Female*.—Differs in having the under part grayish-white (Pr. Max. l.c.)

I have several specimens from Bahia, which correspond exactly to the above description, excepting the blue and golden reflections of tail. The bill is shorter by  $\frac{1}{8}$  inch from the ordinary specimens of *Chlorestes caerulea*; but I am not certain at all that it should be kept as a separate species, as I

have specimens from Trinidad and Venezuela with the golden colour of back. I have also one male specimen from Venezuela with the whole of the underside, excepting the chin of the most brilliant golden-green.

259. *CHLORESTES CAERULEA*, Vieill., Nouv. Dict. Hist. Nat. 1817, p. 361.

*Ornismya audeberti*, Less., Ois. Mou., 1839, p.p. 30-164.

*Trochilus audeberti*, Wied. Betr., t. iv., p. 67.

*Hylocharis caerulea*, Gray, Gen. Birds, vol. i., p. 114.

*Thaumatias caeruleus*, Bon., Conspect. Gen. Av., 1850, vol. i., p. 78.

*Encephala caerulea*, Gould, Mon. Troch., vol. v., p. 335.

*Blue-chinned Sapphire*, Gould, Mon. Troch., vol. v., p. 335.

*l'Eucephale à gorge bleue*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 32.

*Habitat*.—Trinidad, Venezuela, Guiana, Brazil, and Peru.

*Male*.—Upperside dark grass-green in some specimens, in others golden-green. Tail steel-blue. Chin shining blue. Rest of underside luminous yellowish-green in some specimens, in others metallic emerald-green. Undertail-coverts shining green. Anal region white. Maxilla black. Mandible flesh colour with black tip. Wings purple.

Total length,  $3\frac{1}{8}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside like that of male. Underside grayish white more or less tipped with green on sides of neck, breast, abdomen, and flanks.

It is very abundant in Trinidad and Guiana, and it varies very much in the colouring of its plumage.

\*260 *CHLORESTES CHLOROCEPHALA*, Bourcier, Rev. and Mag. Zool., 1854, p. 457.

*Agyrtria chlorocephala*, Reich., Troch. Enum., 1855, p. 7.

*Leupidopygia chlorocephala*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 40.

*Hylocharis chlorocephalus*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Green-headed Sapphire*, Gould, Mon. Troch., vol. v., p. 332.

*l'Eucephale a tête verte*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 30.

*Habitat*.—Ecuador.

*Male*.—Top of head greenish-blue. Upperside bronzy-green. Uppertail-coverts coppery-bronze. Chin, throat, and abdomen, shining grass-green. Thighs white. Undertail-coverts dark olive margined with white. Tail steel-blue. Bill black, base of mandible flesh colour.

Length of bill, 33 mill. Wing, 55 mill. Tail, 38 mill, middle feathers, 30 mill. "Bourcier."

*Female*.—Unknown.

Type in British Museum. "Ex. Gould's Collection."

\*261 CHLORESTES SMARAGDO-CAERULEA, Gould, Mon. Troch., vol. v., p. 331.

*Eucephala smaragdina*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 37.

*Green and blue Sapphire*, Gould, Mon. Troch., vol. v., p. 331.

*l'Eucéphale émeraude*, Muls., Hist. Nat. Ois. Mou. 1875, vol. ii., p. 38.

*Habitat*.—Novo-Friburgo, "Brazil."

*Male*.—Crown of the head and throat glittering greenish-blue, imperceptibly passing into the glittering green of the breast; back of the neck and uppersurface golden-green; undertail-coverts green inclining to purple on some of the feathers; thighs brown; tail bluish-black, the two outer feathers on each side slightly tipped with white; bill black, with the exception of the basal half of the under mandible which is flesh-colour.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Bill,  $\frac{7}{8}$ . "Gould loc. cit."

*Female* unknown.

This is a very rare species. The type is in the British Museum. "Ex. Coll. Gould."

\*262. CHLORESTES CAERULEO-LAVATA, Gould, P.Z.S., 1860, p. 306.

*Reeve's Sapphire*, Gould, Mon. Troch., vol. v., p. 333.

*l'Eucéphale à poitrine bleue*, Muls., Hist. Nat. Ois. Mou., 1875. t. ii., p. 40.

*Habitat*.—San Paolo, Brazil.

*Male*.—Crown of the head greenish-blue, not very brilliant, but having a few conspicuous small bright blue feathers intermingled; throat and breast bright greenish-blue, passing into purer green on the flanks; back of the neck and back deep grass-green; wings purplish-brown; uppertail-coverts bronzy-orange; undertail-coverts bronzy purplish-brown; two middle tail feathers deep purplish-bronze, the next on each side is washed with bronze on its outer margin, the remaining feathers purplish-black; thighs grayish-white; the bill appears to have been reddish flesh-colour at the base of both mandibles and black at the tip.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Bill,  $\frac{7}{8}$ .  
 "Gould, loc. cit."

I think it is still unique in the British Museum. "Type Ex. Gould's Collection."

\*263. CHLORESTES HYPOCYANEA, Gould, P.Z.S., 1860, p. 306.

*Blue-breasted Sapphire*, Gould, Mon. Troch., vol. v., p. 334.

*l'Eucéphale à poitrine bleue*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 36.

*Habitat*.—Brazil?

*Male*.—Crown of the head, back of the neck, back, and flanks somewhat dull green. Throat and breast brilliant blue, passing into glittering green on the centre of the abdomen. Wings purplish-brown. Uppertail-coverts reddish-bronze. Undertail-coverts brownish-black with bronzy tips. Tail steel-black. Thighs brown. Upper mandible black. Basal two-thirds of the lower mandible flesh colour, the apical third black.

Total length,  $3\frac{1}{4}$  in. Bill,  $\frac{3}{4}$ . Wing, 2. Tail,  $1\frac{3}{8}$ . "Gould, loc. cit."

Type of species now in the British Museum. They have also a female, which resembles the female of *C. caerulea*.

It looks very much the same as *E. caeruleo-lavata*.—Edit.

\*264. CHLORESTES PYROPYDIA, Salv. and Godm., Ibis., 1891, p. 596.

*Fire rumped Sapphire*, Gould, Mon. Troch., Suppl., 1886, p. 92.

*l'Eucephale à croupion couleur de feu.*

*Habitat.*—Ecuador.

Closely allied to the preceding species from which it is distinguished by the metallic colour of the crown, which is bluish-green. Underside shining bluish-green, the whole of the middle of the throat washed with brighter blue. Lower part of back russet, with the uppertail-coverts coppery-reddish. Wings dusky. Tail steel-black, slightly rounded.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{9}{16}$ . Centre tail feathers,  $1\frac{1}{8}$ . Outer ones, 1. Bill,  $\frac{9}{16}$ .

Type of species in British Museum.

\*265. CHLORESTES SUBCAERULEA, Elliot, His., 1874, p. 87.

*Blue-breasted Sapphire*, Gould, Mon. Troch., Suppl., 1886, p. 92.

*l'Eucéphale à gorge et cou bleus*, Muls., His. Nat. Ois. Mou., 1875, t. ii., p. 35.

*Habitat.*—Brazil?

*Male.*—Upperpart of head and back dull green, rest of back and upper-tail coverts dark green, with a rufous tinge dispersed all over these parts; throat, breast, and centre of abdomen beautiful metallic caerulean-blue; flanks shining grass-green. Lower part of abdomen covered by fluffy-white feathers. Undertail-coverts metallic green. Wings purple. Tail bluish-black. Maxilla black; mandible yellow (in life possibly red), for its entire length, save the tip which is black. Feet brownish black. Thighs buffy-white.

Total length,  $3\frac{1}{4}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ . "Elliot, loc. cit."

Type unique in Elliot's Collection, now the property of the New York Museum of Natural History.

\*266. CHLORESTES (?) SCAPULATA, Gould, Int. Troch., 1861, p. 166.

*Black-bellied Sapphire*, Gould, Mon. Troch. Suppl., p. 91.

*l'Eucéphale à épaulettes*, Muls. Hist. Ois. Mou., 1875, t. ii., p. 34.

*Habitat.*—Guiana?

*Male.*—Crown of the head, back of the neck, and lower



part of the back very deep dull green; throat and chest glittering greenish-blue, imperceptibly passing into the dull brownish-black of the abdomen; undertail-coverts brown with a wash of dull blue in the centre of each feather; a mark of blue on each side at the insertion of the wing, forming an indistinct band across the back; uppertail-coverts bronzy-green; tail steel-black, rather short for the size of the bird and slightly forked; wings deep purplish-brown; tarsi clothed with intermingled grayish-white and brown feathers; upper mandible black; basal half of the under mandible fleshy, the apical half black.

Total length,  $3\frac{3}{4}$  in. Bill,  $\frac{7}{8}$ . Wing,  $2\frac{1}{16}$ . Tail,  $1\frac{3}{4}$ . "Gould, loc. cit."

Type, Ex. Gould's Collection, still unique in the British Museum.

GENUS LXXXI. **Saucerottia**, Bon., Compt. Rend., 1850, p. 381.

*Erythronota*, Gould, Int. Troch., 1861, p. 169.

*Eratopis*, Heine., Journ. fur Ornith., 1863, p. 191.

*Erasuria*, Hein., Journ. fur Ornith., 1863, p. 191.

*Lisoria*, Muls., Cat. Ois. Mou., 1875, p. 11.

TYPE: *O. erythronota*, Lesson.

Bill longer than the head, straight, broad at base, graduating to an acute point. Wings narrow and long, reaching the end of tail. Tail slightly forked. Rectrices narrow, middle ones shorter than the next one, which is also shorter than the third one, the two outermost ones of same length and longest of all, always steel-blue or greenish-black. Nostrils exposed. Feet small. Tarsi clothed. Sexes nearly similar.

*Habitat*.—Central America, Guiana, Venezuela, Columbia, Trinidad, and West Indies Islands.

267. SAUCEROTTIA ERYTHRONOTA, Less., Ois. Mou., 1829, p. 181.

*Ornismya erythronotus*, Less., Rev. Zool., 1839, p. 19.

*Polytmus erythronotus*, Gray, Gen. Birds, vol. i., p. 108.

*Chlorestes erythronotus*, Reich., Troch. Enum., 1855, p. 4.

*Hemithylaca erythronota*, Cab. and Hein., Mus. Hein., 1860, t. iii. p. 37.

*Erythronota antiqua*, Gould, Mon. Troch., vol. v., p. 316.

*Ariana erythronota*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 323.

*Erythronote*, Gould, Mon. Troch., vol. v., p. 316.

*l' Ariane erythronote*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 323.

*Habitat*.—Trinidad.

*Male*.—Forehead metallic green. Neck and upper part of back shining golden-green. Lower part of back and rump coppery-red. Uppertail-coverts purplish-bronze. Tail steel-blue. Underside brilliant metallic grass-green. Thighs and patch on the flanks white. Undertail-coverts sometimes rufous or purplish-gray edged with rufous. Wings purple. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside like the male, excepting the uppertail-coverts which are rufous-bronze. All the rectrices of tail tipped with reddish-bronze. Underside like that of male but less brilliant.

Very common species in Trinidad.

268. SAUCEROTTIA FELICIAE, Less., Rev. Zool., 1840, p. 72.

*Ornismya feliciana*, Less., Rev. Zool., 1844, p. 433.

*Chlorestes feliciae*, Reich., Troch. Enum., 1855, p. 4.

*Hemithylaca feliciae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 38.

*Erythronota feliciae*, Gould, Mon. Troch., vol. v., p. 317.

*Felicia's Erythronote*, Gould, Mon. Troch., vol. v., p. 317.

*l' Ariane de Félicie*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 320.

*Habitat*.—Venezuela.

*Male*.—The only difference which I can see between this species and *S. erythronota* is the colour of the top of the head which is metallic golden-green. I have one fine male specimen which has the whole of the underside metallic golden-green, but this variety of colour exists also in *S. erythronota*.

*Female*.—Less brilliantly coloured than the male, with the central parts of abdomen and lower parts of flank grayish.

In one of my specimens the tips of outermost rectrices are bronzy-red.

My specimens were collected in Caracas, by Doctor Carlos Rojas.

269. SAUCEROTTIA WELLSI, Boucard, Hum. Bird, 1893, vol. iii., p. 8.

*Wells' Erythronote.*

*l'Erythronote de Wells.*

*Habitat.*—Grenada, "British West Indies."

*Male.*—Forehead metallic grass-green. Upperside dark shining green, passing to bronze on lower part of back, rump, and uppertail-coverts. Tail shining dark purplish-blue. Underside metallic grass-green. A tuft on flanks, anal region, and thighs white. Undertail-coverts bronze margined with gray. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female.*—Exactly like the male, but slightly less brilliant. Centre of anal region grayish.

This species is closely allied to *S. erythronota*, but can be easily distinguished from that species by the colour of the upperside and tail.

It was sent to me, from Grenada, by Mr. Wells.

Types in Boucard's Museum.

270. SAUCEROTTIA HOFFMANNI, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 60.

*Hemithylaca hoffmanni*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 60.

*Hoffmann's Erythronote.*

*la Saucérotte d'Hoffmann.*

*Habitat.*—Costa Rica.

*Male.*—Upperside dark shining green, passing to bronze on rump, with a bar of purplish-red close to the uppertail-coverts. Uppertail-coverts and tail shining deep blue. Underside metallic grass-green. Undertail-coverts shining blue, fringed with gray. Wings purplish. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{7}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Exactly like the male, but less brilliant. Abdomen and flanks green tinged with gray. Tips of lateral rectrices reddish-bronze. Same size as male.

I collected several specimens of both sexes of this species at San José, Costa Rica, from January to April, 1877.

It was discovered in Costa Rica, by Doctor Hoffmann.

271. SAUCEROTTIA SOPHIAE, Bour. and Muls., Ann. Soc. Agr., Lyon., 1846, t. ix., p. 318.

*Trochilus caligatus*, Gould, P.Z.S., 1848, p. 14.

*Polytmus sophiae*, Gray, Gen. Birds, vol. i. p. 109.

*Amazilius sophiae*, Bon., Consp. Gen. Av., 1850, p. 78.

*Chlorestes sophiae*, Reich., Troch. Enum., 1855, p. 4.

*Saucerottia warszewiczi*, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 38.

*Hemithylaca warszewiczi*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 38.

*Hemithylaca braccata*, Heine, Journ. fur Ornith., 1863, p. 193.

*Ariana Sophiae*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 328.

*Sophia's Erythronote*, Gould, Mon. Troch., vol. v., p. 322

*l'Ariane de Sophie*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 329.

*Ariana warszewiczi*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 327.

*Warszewicz's Amazili*, Gould, Mon. Troch., Suppl., 1886, p. 89.

*l'Ariane de Warszewicz*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 327.

*Habitat*.—Columbia and Venezuela.

*Male*.—The only difference between this species and *S. hoffmanni* consists in the general colour of the upperside, which is darker green, the rump of the same colour, with only a few purplish-red feathers near the uppertail-coverts, the wing-coverts are shining green. In *S. sophiae* they are reddish bronze. Both species are of the same size. The female is less brilliant, and has no spots on the rectrices.

My specimens of this species were collected at Valencia and Baranquilla (Columbia), and I have also a large series from Merida, Venezuela. There is no difference whatever between them, and the name of *H. braccata* Heine is not valid.

This species was discovered by Delattre, in Columbia.

This is certainly the species described by Messrs. Mulsant and Bourcier, and figured by Gould, in volume 5 of his Monograph, page 322. Hence the priority of *S. hoffmanni* for the Costa Rican species.

\*272. SAUCEROTTIA SAUCEROTTEI, Delattre and Bourc., Rev. Zool., 1846, p. 311.

*Polytmus saucerottei*, Gray, Gen. Birds, vol. i., p. 108.

*Saucerottia typica*, Bon., Consp. Gen. Av., vol. i., p. 77.

*Chlorestes typica*, Reich., Troch. Enum., p. 4.

*Erythronota saucerottei*, Gould, Mon. Troch., vol. v., p. 321.

*Hemithylaca saucerottei*, Cab. and Hein., Mus. Hein., t. iii., p. 38.

*Ariana saucerottei*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 321.

*Saucerotte's Erythronote*, Gould, Mon. Troch., vol. v. p. 321.

*l'Ariane de Saucerotte*, Muls., His. Nat. Ois. Mou., 1874, t. i., p. 331.

*Habitat*.—Columbia.

*Male*.—Top of head and upper surface dark grass-green; under surface luminous green, much lighter than the upper-parts. Vent white. Undertail-coverts dark bronzy-brown edged with grayish-white. Wings purple. Uppertail-coverts and tail steel-black. Maxilla black. Mandible flesh colour, tip black.

Total length, 3½ in. Wing, 1⅞. Tail, 1⅜. Culmen, ⅝.

*Female*.—Like the male, but not so bright.

This species was discovered in Columbia, by Delattre.

273. SAUCEROTTIA CYANIFRONS, Bourc., Rev. Zool., 1843, p. 100.

*Polytmus cyanifrons*, Gray, Gen. Birds, 1844-49, vol. 1, p. 108.

*Thalurania cyanifrons*, Bon., Consp. Gen. Av., 1850, p. 77.

*Chlorestes cyanifrons*, Reich., Troch. Enum., 1855, p. 4.

*Hemithylaca cyanifrons*, Heine, Journ. fur Ornith., 1863, p. 191.

*Ariana cyanifrons*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 332.

*Blue-capped Saucerottia*, Gould, Mon. Troch., vol. v., p. 223.

*la Saucérotte à tête bleue.*

*Habitat*.—Columbia.

*Male*.—Head deep shining blue. Upperside bronzy-green, passing to dull bronze on rump. Uppertail-coverts bluish-bronze. Tail bluish-black. Underside brilliant metallic grass-green, golden on centre of abdomen in some specimens. Sides of flanks and thighs white. Undertail-coverts, purplish-bronze margined with white. Wings purple. Maxilla black. Mandible flesh colour, with black tip.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside like that of male, but less brilliant. Underside metallic grass-green with the centre of abdomen and sides of flanks gray. Undertail-coverts pale olive margined with gray.

Total length,  $3\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

This species is very common in Columbia, where it was discovered by M. Rieffer.

I have one male specimen with white feathers on head, neck and throat, as if passing to albinism.

274. SAUCEROTTIA NUNEZI, Boucard, Hum. Bird, 1892, p. 81.

*Nuñez's Saucerottia.*

*la Saucerotte de Nuñez.*

*Habitat*.—Columbia.

*Male*.—Upperside black with purplish reflections. Uppertail-coverts purplish, each feather margined with grayish-green. Tail dark steel-blue. Wings bluish-purple. Throat shining dark purple, each feather with a white band above the purple, giving a scaly appearance to that part. Abdomen and flanks purplish, margined with gray. A patch on each side of flanks, vent, and tarsal tuft pure white. Undertail-coverts dark



brownish-green with white margin. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{2}{8}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Unknown.

Type of species in my collection.

GENUS LXXXII. **Amazilia**, Reichenback, Av. Syst. Nat., 1849, pl. 39.

AMAZILIS, Lesson, Ind. Gen. et Syn. Genr. Troch., 1822, p. 27.

AMAZILIA, Reich., Avium. Syst. Nat., 1849, p. 39.

AMAZILIUS, Bon., Consp. Gen. Av., 1850, vol. i., p. 77.

PYRRHOPHAENA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 35.

HEMYTHILACA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 37.

HEMISTILBON, Gould, Int. Troch., 1860, p. 149.

ERANNA, Heine, Journ. fur Ornith., 1863, p. 187.

ERATINA, Hein., Journ. fur Ornith., 1863, p. p. 190-191.

ARIANA, Muls. and Verr., Class. Troch., 1865, p. 36.

MYLETES, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 284.

*Type*.—*O. amazili*. Lesson.

Bill longer than the head, slightly curved, broad at base, graduating to an acute point. Feathers of forehead not projecting on the culmen. Nostrils exposed. Wings long and pointed. Tail slightly forked, outermost rectrice of the same length as the middle one, the other three nearly even, and longer. Tarsi clothed. Sexes nearly alike.

*Habitat*.—Mexico, Central America, Tres Marias Islands, Columbia, Ecuador, and Peru.

275. AMAZILIA AMAZILI, Less., Voy. Coq., 1826, pl. 31.

*Ornismya amazili*, Less., Ois. Mou., 1829, p. 27.

Trochilus (Lampornis) amazilia, Tschud. Consp. Av., p. 37.

*Polytmus amazili*, Gray, Gen. Birds, vol. i., p. 108.

*Amazilia latirostris*, Bon., Consp. Gen. Av., 1850, vol. i., p. 77.

*Amazilia pristina*, Gould, Mon. Troch., vol. v., p. 303.

*Pyrrhophæna amazilia*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 35.

*Amazilia lessoni*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 293.

*Amazili*, Gould, Mon. Troch., vol. v., p. 303.

*l'Amazili de Lesson*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 293.

*Habitat*.—Peru.

*Male*.—Upperside bronzy-green. Tail pale chestnut, glossed on the edges and tips of central feathers with greenish-bronze. Throat and sides of breast metallic emerald-green. Breast white. Abdomen and flanks rufous. Wings purplish-brown. Bill flesh colour with black tips.

Total length, 4in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

It is a rare species. It was discovered by Lesson in the neighbourhood of Lima. My specimens of this species were also collected near Lima.

276. AMAZILIA FORRERI, Boucard, Hum. Bird, 1893, vol. iii., p. 7.

*Forrer's Amazili*.

*l'Amazili de Forrer*.

*Habitat*.—Mazatlan.

*Male*.—Upperside shining golden-green, brownish on head. Rump and uppertail-coverts chestnut. Median rectrices purplish-chestnut, passing to reddish bronze at tips, lateral purplish-chestnut with dark reddish-black edges near the tips, outermost one chestnut. Throat and sides of neck golden-green. Breast, abdomen, and vent white. Flanks pale rufous. Undertail-coverts pale chestnut margined with white. Wings brown, passing to purple on shoulders. Maxilla black. Mandible flesh colour with black tip.

Total length, 4in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

I have only one specimen of this new species, which I bought in San Francisco (California). It was sold to me with some other birds, as having been collected in Mazatlan, by Mr. Forrer.

Type in Boucard's Museum.

277. *AMAZILIA LEUCOPHAEA*, Reich., Aufz. der Col., 1853,  
p.p. 10-24.

*Pyrrhophæna leucophaea*, Cab. and Hein., Mus. Hein.,  
1860, t. iii., p. 35.

*White-breasted Amazili*, Gould, Mon. Troch., vol. v., p. 306.

*l'Amazili à poitrine blanche*, Muls., Hist. Nat. Ois. Mou.,  
1874, t. i., p. 291.

*Habitat*.—Peru.

*Male*.—Upperside golden-green. Rump and undertail-coverts rufous. Tail rufous, median feathers edged and tipped bronze. Throat and sides of neck golden-green. Breast white. Rest of underside rufous. Wings pale brown. Bill flesh colour with black tips.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{5}{8}$ .

It is a rare species.

- \*278. *AMAZILIA ALTICOLA*, Gould, P.Z.S., 1860, p. 309.

*Mountain's Amazili*, Gould, Mon. Troch., vol. v., p. 304.

*l'Amazili alticole*, Muls., Hist. Nat. Ois. Mou., 1874, t. i.,  
p. 289.

*Habitat*.—Ecuador.

*Adult*.—Upperparts bronzy-green, darkest on the head. Upperparts of throat and sides of neck metallic golden-green. Rest of underparts white, except flanks which are buff. The white undertail-coverts are washed with buff. Uppertail-coverts and tail chestnut, median rectrices tipped with bronzy-green. Wings purplish-brown. Bill flesh colour, with black tip. Feet black.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{3}{4}$ .

"Gould, loc. cit."

According to Elliot, specimens vary in their colouration, and some are almost entirely white beneath, with just a few feathers of the throat tipped with golden-green.

This rare species was discovered in Ecuador, by Bourcier.

279. *AMAZILIA DUMERILI*, Less., Ois. Mou., Suppl., 1831,  
p. 172.

*Polytmus dumerili*, Gray, Gen. Birds, vol. i., p. 109.

*Pyrrhophæna dumerili*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 36.

*Dumeril's Amazili*, Gould, Mon. Troch., vol. v., p. 305.

*l'Amazili de Duméril*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 288.

*Habitat*.—Ecuador.

*Male*.—This species is closely allied to the preceding one, but it has the uppertail-coverts and tail bronzy-green. The breast is pure white, encircled by metallic green feathers. Abdomen and flanks rufous. Undertail-coverts white, washed with pale rufous. Bill flesh colour with black tips.

Total length,  $3\frac{3}{8}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Differs by having the green feathers of throat and sides of breast much less bright than the male, the middle of the abdomen white, and pale rufous tips on lateral rectrices.

It is a rare species. It was dedicated by Lesson to Dumeril, Member of the French Institute, and a well-known Scientist.

280. *AMAZILIA GRAYSONI*, Lawr., Ann. N.Y., Lyc., Nat. Hist., 1867, p. 404.

*Grayson's Amazili*, Gould, Mon. Troch., Suppl., 1886, p. 87.

*l'Amazili de Grayson*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 286.

*Habitat*.—Tres Marias Islands, Mexico.

*Male*.—Upperside dark shining golden-green, brownish on forehead. Uppertail-coverts and tail cinnamon, all the rectrices tipped with dark bronze, appearing nearly black in certain lights; the outermost ones are also edged with bronze on their external webs, excepting the base. Wings purplish. Underside cinnamon. Bill flesh colour with black tips.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{16}$ .

*Female*.—Slightly smaller and paler, otherwise like the male.

This rare species was discovered by Mr. Grayson, and dedicated to him by Mr. Lawrence.

My specimen, from which the above description is taken, was collected by Mr. Forrer, in Tres Marias Islands.

281. *AMAZILIA CINNAMOMEA*, Less. Rev. Zool., 1842, p. 175.

*Ornysmia rutila*, Delatt., Echo du monde savant, 1843, p. 1069.

*Trochilus corallirostris*, Bourc. and Muls., Ann. Soc. Agr. Lyon, 1846, t. ix., p. 328.

*Amazilius erythrorhynchus*, Bon. Compt. Rend., 1850, p. 382.

*Amazilius corallirostris*, Bon. Consp. Gen. Av., 1850, vol. i., p. 77.

*Pyrrhophæna corallirostris*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 35.

*Eranna cinnamomea*, Heine, Journ. fur Ornith., 1863, p. 187.

*Coral-billed Amazili*, Gould, Mon. Troch., vol. v., p. 307.

*l'Amazili à poitrine rousse*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 285.

*Habitat*.—Mexico, Guatemala, and Costa Rica.

*Male*.—The only difference between this species and *A. graysoni* is in its much smaller size, the tips of rectrices which are metallic bronze or metallic bronze-green, and the forehead of the same colour as the rest of the upperside.

The female is slightly paler than the male.

Total length,  $2\frac{6}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

I think that the discoverer of this species is Delattre, who communicated it to Lesson.

I have some specimens of this species collected by Sumichrast, at Tehuantepec, Mexico, and others which I collected at Punta-Arenas, Costa Rica.

282. *AMAZILIA YUCATANENSIS*, Cabot., Proceed. Nat. Hist., Boston, 1845, p. 74.

*Pyrrhophæna yucatanensis*, Gould, Int. Troch., 1861, p. 157.

*Errana yucatanensis*, Heine, Journ. fur Ornith., 1863, p. 187.

*Yucatan Amazili*, Gould, Mon. Troch., vol. v. p. 308.

*l'Amazili du Yucatan*, Muls., His. Nat. Ois. Mou., 1874, t. i., p. 295.

*Habitat*.—Yucatan, Mexico.

*Male*.—Upperside golden-green. Tail chestnut with bronze tips, which are scarcely visible on the two outermost feathers. Throat and breast metallic green, with golden reflections. Abdomen and under-tail coverts cinnamon. Wings purplish-brown. Bill flesh colour with black tips.

Total length, 4in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{13}{16}$ .

It is a rare species. My specimens were collected by Gaumer, in Yucatan.

I have also one specimen sent by the same collector, at the same time, which I consider as the female of that species. It is exactly coloured as the male, but all the underside is cinnamon as *A. cinnamomea*; the tail is exactly like that of the male with greenish bronze spots at tips of outermost rectrices; the external webs of these rectrices are also bronzy-green.

283. *AMAZILIA CERVINIVENTRIS*, Gould, P.Z.S., 1856, p. 150.

*Pyrhophæna cerviniventris*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 36.

*Errana cerviniventris*, Heine, Journ. fur Ornith., 1863, p. 187.

*Fawn-breasted Amazili*, Gould, Mon. Troch., vol. v., p. 309.

*l'Amazili à ventre de biche*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 297.

*Habitat*.—Mexico.

*Male*.—Upperside golden-green. Median rectrices dark rufous margined, and tipped bronze, lateral rufous with external webs and tips bronze. Underside metallic green, golden on breast and sides of neck. Abdomen pale rufous. Flanks pale rufous, washed with golden feathers. Undertail-coverts pale rufous. Wings purplish brown. Bill flesh colour with black tips.

Total length, 3 $\frac{6}{8}$ in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{13}{16}$ .

This species was discovered by Mr. Sallé and myself, at Tospam, near Cordoba, Mexico. It is closely allied to *A. yucatanensis*, but easily distinguished from that species by the colour of the abdomen, undertail-coverts, and flanks, and the tail. In *A. yucatanensis*, the lateral rectrices are much narrower, with small bronzy-black tips, instead of large bronze tips.



\*284. *AMAZILIA CASTANEIVENTRIS*, Gould, P.Z.S., 1856, p. 150.

*Chestnut-bellied Amazili*, Gould, Mon. Troch., vol. v., p. 310.

*l'Amazili à ventre marron.*

*Habitat.*—Columbia.

Crown of the head, upper part of the back and shoulders reddish-bronze; rump and uppertail-coverts grayish, with a bronzy lustre; wings purplish-brown with the exception of the basal portion of the primaries and secondaries, which are rufous; tail dark chestnut tipped with a bronzy lustre, of great extent and most conspicuous on the centre feathers; throat, forepart of the neck, breast, and upperpart of the abdomen shining golden-green; undersurface of the shoulders, lower part of the abdomen and undertail-coverts fine chestnut-red; thighs white; upper mandible brownish-black, under mandible flesh colour, except the tip, which is brownish-black.

Total length,  $3\frac{1}{2}$  in. Bill,  $\frac{7}{8}$ . Wing,  $2\frac{1}{16}$ . Tail,  $1\frac{1}{4}$ .

"Gould, loc. cit."

This species differs from *A. cerviniventris*, in the much greater depth of the chestnut colouring of the abdomen, undertail-coverts and tail, in size it is considerably less than in that species, being even smaller than *A. beryllina*, to which it offers an alliance in the colouring of the wings; but from which it differs in the colouring of its abdomen; the white feathers of the thighs are much developed and very conspicuous.

285. *AMAZILIA FUSCICAUDATA*, Fras., P.Z.S., 1840, p. 17.

*Trochilus riefferi*, Bourc., Rev. Zool., 1843, p. 103.

*Trochilus aglaiae*, Bourc. and Muls., Ann. Soc. Phys. and Sc. Lyon, 1846, p. 329.

*Hylocharis fuscicaudatus*, Gray, Gen. Birds, vol. i. p. 114.

*Amazilius, aglaiae*, Bon. Consp. Gen. Av., 1850, vol. i., p. 71.

*Trochilus dubusi*, Bourc., Soc. Agr. Lyon, 1852, p. 141.

*Polytmus aglaiae*, Gray, Gen. Birds, 1844-49, vol. i., p. 109.

*Saucerottia aglaiae*, Reich., Aufz. der Colib., 1853, p. 10.

*Chlorestes aglaiae*, Reich., Troch. Enum., 1855, p. 4.

*Pyrrhophæna riefferi*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 36.

*Pyrrhophæna suavis*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 36.

*Hemithylaca aglaiae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 36.

*Errana jacunda*, Heine, Journ. fur Ornith., 1863, p. 188.

*Rieffer's Amazili*, Gould, Mon. Troch., vol. v., p. 311.

*l'Arianne de Rieffer*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 317.

*Habitat*.—Mexico, Central, America, Columbia, and Ecuador.

*Male*.—Upperside shining bronze-green, with golden reflections. Uppertail-coverts reddish-chestnut. Tail chestnut, all the rectrices more or less margined and tipped bronze. In some specimens, especially from Costa Rica, and Guatemala, the margins and tips of rectrices are purplish-black bronze. Throat and breast brilliant metallic grass-green, golden in some specimens. Abdomen and flanks pale brown, washed with green feathers. Undertail-coverts rufous. Wings purplish. Bill flesh colour with black tips. Thighs, and a tuft on each side of vent white.

Total length, 4in. Wing,  $2\frac{2}{3}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Less brightly coloured than the male.

This is one of the most common species, and with the widest range. I have collected many specimens in Guatemala, Costa Rica, and Panama, and I cannot see the least difference between these and the specimens which I have from Columbia and Ecuador. Therefore, I think as Mr. Elliot, that all of them belong to the same species.

\*286. *AMAZILIA LAWRENCEI*, Elliot, Auk., 1889, pp. 209-210.

*Amazilia aeneobrunnea*, Chap., Journ. fur Ornith., 1889, p. 329.

*Lawrence's Amazili*.

*l'Amazili de Lawrence*.

*Habitat*.—Columbia?

Crown of head, neck, back, upperwing-coverts, and upper-tail coverts dull bronzy-green. Wings purple, base of primaries and secondaries blackish. Throat, sides of neck, and breast glittering grass-green; lower part of flanks and abdomen very dark chestnut-brown; undertail-coverts cinnamon. Tail bright chestnut, tips and edges of both webs bluish-black, most extensive on lateral feathers, reaching on outer webs nearly

to their base. Maxilla black, mandible black with a slight indication of flesh-colour at the base. Feet black.

Length of wing,  $2\frac{1}{12}$  in. Tail,  $\frac{1}{2}$ . Culmen,  $\frac{9}{12}$ . "Elliot loc cit."

This species is easily distinguished from all the others by its black bill, differently coloured abdomen, and undertail-coverts.

It was dedicated by Mr. Elliot to the well-known American Ornithologist, Mr. George N. Lawrence.

The type is in the American Museum of Natural History of New York.

287. *AMAZILIA VIRIDIGASTER*, Bourc., Rev. Zool., 1843, p. 105.

*Hylocharis viridigaster*, Bon., Conspect. Gen. Av., 1850, vol. i., p. 74.

*Saucerottia viridiventrīs*, Reich., Aufz. der Col., 1853, p. 8.

*Hemithylaca viridiventrīs*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 38.

*Pyrrhophæna viridigaster*, Gould, Int. Troch., 1861, p. 159.

*Ariana viridigaster*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 320.

*Green bellied Amazili*, Gould, Mon. Troch., vol. v., p. 314.

*l'Ariane à ventre vert*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 321.

*Habitat*.—Columbia.

*Male*.—Forehead metallic green. Neck and back shining green. Lower part of back and rump, grayish bronzy-brown, passing into purple on the uppertail-coverts. Tail shining violet with blue reflections. Underside metallic grass-green, passing into smoky-brown on lower part of abdomen. Thigh and tuft on anal region white. Undertail-coverts pale greenish-bronze, margined with light buff on some specimens, on others margined with white. Wings purplish. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside like the male, but less bright. Flanks and abdomen smoky-brown, washed with green. Rufous tips on lateral rectrices.

Bourcier's type is in my collection.

This species was discovered in Columbia, by Mr. Rieffer.

\*288. *AMAZILIA IODURA*, Saucerotte, M.S.

*Saucerottia iodura*, Reich., Aufz. der Colib., 1853, p. 8.

*Chlorestes iodurus*, Reich., Troch. Enum., 1855, p. 4.

*Hemithylaca iodura*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 39.

*Pyrrhophæna iodura*, Gould, Int. Troch., 1861, p. 59.

*Eratina iodura*, Heine, Journ. für Ornith., 1863, p. 190.

*White-vented Amazili*, Gould, Mon. Troch., Suppl., 1886, p. 88.

*l'Amazili à ventre blanc.*

*Habitat.*—Columbia.

"Capite, collo, pectore, dorso superiore, tectricibusque alarum splendide virescentibus, gula paululum albo intermixta; alis coeruleo-virescentibus latissime pallide fulvescente-limbatis; cauda splendide purpureo-violaceo; abdomine fulvescente; crisso albido."

Length, 3" 3". Wing, 2". Tail, 1" 2". Culmen, 9".  
"Cab. and Hein., loc. cit."

From some specimens compared with the type, and kindly sent to me by Count Berlepsch, I am of opinion that this species is not valid, and is the same as the preceding one, *A. viridigaster*.

\*289. *AMAZILIA LUCIDA*, Elliot, Ann. and Mag. Nat. Hist., 1877, p. 404.

*Elliot's Amazili*, Gould, Mon. Troch., Suppl., 1886, p. 89.

*Le Pyrrhophène brillant*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 183.

*Habitat.*—Columbia.

*Adult.*—Crown of the head dark metallic green; upper-surface shining grass-green, lighter than the head. Upper-tail-coverts golden-bronze. Throat, breast, abdomen, and flanks metallic grass-green, a light mouse coloured spot on the lower part of the abdomen. Thighs white, feathers fluffy. Undertail-coverts dark bronzy-brown, edged with white. Wings dark purple. Tail reddish-bronze, darkest in the centre of the feathers along the shafts, with the tips of the lateral rectrices bluish-black, their edges reddish-bronze. This bluish-black colour, almost resolves itself into a subterminal bar,

and is especially conspicuous on the underside of the tail. Bill brownish red, flesh colour in life, tip blackish.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{3}{4}$ . "Elliot's Synopsis Hum. Birds, p. 223."

Type in Elliot's Museum, now in the Museum of Natural History, New York.

290. *AMAZILIA EDWARDI*, Delatt. and Bourc., Rev. Zool., 1846, p. 308.

*Polytmus edwardsi*, Gray, Gen. Birds, 1844-49, vol. i, p. 109.

*Saucerottia edwardsi*, Reich., Aufz. der Col., 1853, p. 8.

*Thaumantias edward*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Erythronota edwardi*, Lawr., Ann. Lyc. N. York, t. vii., p. 292.

*Wilson's Erythronota*, Gould, Mon. Troch., vol. v., p. 318.

*Le Leucodore d'Edouard*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 312.

*Habitat*.—Panama, Veragua.

*Male*.—Top of head shining green, bronzy on neck. Back bronzy-green passing to shining reddish-bronze on rump and uppertail coverts. Tail bronzy-purple. Throat, breast, and flanks metallic grass-green passing to golden on flanks. Abdomen pure white. A tuft of white feathers on sides of flanks. Thighs white. Undertail-coverts pale rufous bordered with grayish-white. Wings purple. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

This fine species was discovered in Panama, by Delattre. He and Bourcier described and dedicated it to Mr. Edward Wilson, of Lydstip, near Tenby. Mr. Wilson made a very fine Ornithological collection during his life, and was a liberal patron of science.

291. *AMAZILIA NIVEIVENTRIS*, Gould, P.Z.S., 1850, p. 164.

*Saucerottia niveiventer*, Reich., Aufz. der Colib., 1853, p. 8.

*Chlorestes niveiventris*, Reich., Troch. Enum., 1855, p. 4.

*Thaumantias niveiventer*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Hemithylaca niveiventris*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 37.

*Erythronota niveiventris*, Gould, Mon. Troch., 1861, vol. v., p. 319.

*Leucodora niveiventris*, Muls., Hist. Nat. Ois. Mou., 1876, t. i., p. 313.

*White-breasted Erythronote*, Gould, Mon. Troch., vol. v. p. 319.

*Le Leucodore à ventre d'un blanc de neige*, Muls., Hist. Nat, Ois. Mou, 1874, t. i., p. 314.

*Habitat*.—Veragua, Panama.

*Male*.—Exactly like the preceding species, from which it differs by the colour of its tail, which is purplish-black, and the undertail-coverts brownish-bronze, margined with white.

Total length,  $3\frac{3}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

This species was discovered in Panama by M. Seemann.

292. *AMAZILIA CUPREICAUDA*, Salv. and Godm., Ibis., 1884, p. 452.

*Copper-tailed Amazili*, Gould, Mon. Troch., Suppl. 1886, p. 88.

*l'Amazili à queue bronzée*

*Habitat*.—Roraima, B. Guiana.

*Male*.—Top of head brilliant metallic green. Upperside bronzy-green, passing to coppery-red on rump and uppertail-coverts. Median and lateral rectrices, dark cinnamon with purple tips, outermost one cinnamon with reddish-bronze tip. Underside brilliant metallic green. A patch on flanks and thighs white. Undertail-coverts cinnamon. Wings purplish. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Similar to the male, but less brilliant and slightly smaller. Centre of abdomen dusky-brown. Median and lateral rectrices tipped with bronze.

This species was discovered in British Guiana by the well-known collector, Mr. H. Whitely.



293. *AMAZILIA BERYLLINA*, Licht. Preiz. Verz. Thier., 1830, No. 26.

*Ornismya arsinoe*, Lesson, Suppl. Ois. Mou., 1829, pp. 154-156.

*Polytmus arsinoe*, Gray, Gen. Birds, vol. i., p. 109.

*Amazilius arsinoe*, Bon., Consp. Gen. Av., 1850, vol. i., p. 77.

*Pyrrophæna beryllina*, Cab. and Hein, Mus. Hein., 1860, t. iii., p. 36.

*Berylline Amazili*, Gould, Mon. Troch., vol. v., p. 312.

*Le Pyrrophène d'Arsinoé*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 304.

*Habitat*.—Mexico.

*Male*.—Upperside shining green, golden in certain lights. Rump and uppertail-coverts bronzy-violet. Median rectrices purplish-bronze, laterals chestnut-red with purplish-bronze reflections, outermost chestnut. Throat, breast and flanks metallic green with golden reflections. A patch of white feathers on sides of flanks. Lower part of abdomen fawn in very adult males, in others reddish-gray. Undertail-coverts rufous margined with white. Primaries and secondaries chestnut at base, remainder purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{6}{8}$  in. Wing  $2\frac{1}{8}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Exactly like the male, but less bright on throat and breast, and more reddish-gray on abdomen and flanks.

I collected many specimens of this species in Mexico.

- \*294. *AMAZILIA OCAI*, Gould, Ann. Mag. Nat. Hist., 1859, vol. iv., p. 96.

*Pyrrophæna ocai*, Cab. and Hein., Mus. Hein., 1860 t., iii., p. 36.

*Hemistilbon ocai*, Gould, Int. Troch., 1861, p. 150.

*D'Oca's Amazili*, Gould, Mon. Troch., vol. 5, p. 289.

*Le Pyrrophène d'Oca*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 302.

*Habitat*. Jalapa, Mexico.

*Male*.—Crown, sides of the head, throat, and breast glittering grass-green, with a few of the white bases of the

feathers showing on the centre of the throat; back of the neck, and upper part of the back deep green; upper and under wing-coverts, flanks, lower part of the back, uppertail-coverts, and tail greenish-bronze; under surface of the base of the outer tail-feathers, reddish-buff; wings, purplish-brown; base of the secondaries, reddish-buff; abdomen, pale brown; undertail-coverts, light bronze margined with white; bill black, lighter beneath; feet brown (Gould, Mon. Troch).

Total length, 4in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{16}$ .

This very rare species was discovered near Jalapa, by the Mexican Naturalist, Mr. Montes de Oca. It was dedicated to him, by Gould.

295. *AMAZILIA SUMICHRASTI*, Salv., Ann and Mag. Nat. Hist., 1891, p. 376.

*Sumichrast's Amazili.*

*l'Amazili de Sumichrast.*

*Habitat.*—Tehuantepec, S. Mexico.

*Male.*—Upper surface shining grass-green, darker on the head, more golden-bronze on the rump and upper tail-coverts; throat and breast glittering grass-green, the white bases of the feathers hardly showing anywhere; abdomen and flanks shining grass-green; undertail-coverts rufous; tail rich lustrous coppery-bronze; bases of the inner primaries and secondaries chestnut; maxilla black; mandible flesh colour, the tip black.

Total length, 3-8in. Wing, 2-1. Tail, 1-2. Bill, 0-9.

In some respects, this species resembles to *A. ocai*, but the richer, more coppery colour of the tail, the dull coloured crown and uniform green throat readily distinguish it.

Type in British Museum "Ex. Coll. Godman and Salvin."

This species was discovered in Mexico, by my late friend, Sumichrast.

296. *AMAZILIA MARIAE*, Bourc., Ann. Soc. Agr. Lyon., 1846, t. ix., p. 319.

*Trochilus devillei*, Bourc., Rev. Zool., 1848, p. 272

*Hylocharis mariae*, Bon., Consp. Gen. Av., 1850, vol. i., p. 74.

*Smaragdites mariae*, Reich., Aufz. der Col., 1855, p. 7.

*Saucerottia maria*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Chlorestes, mariae*, Reich., Troch. Enum., 1865, p. 4.

*Panychlora mariae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 49.

*Amazilia dumerili*, Salv., Ibis., 1860, p. 270.

*Eranna devillei*, Heine, Journ. fur Ornith., 1863, p. 188.

*Deville's Amazili*, Gould, Mon. Troch., vol. v., p. 313.

*Le Pyrrhophène de Deville*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 306.

*Habitat*.—Guatemala.

*Male*.—Head metallic green. Neck and back dark shining green. Lower part of back and rump reddish-bronze. Upper-tail coverts dark bluish-purple. Tail brilliant red-purple, with bluish-purple tips and margins on all the feathers. Under-side brilliant metallic green. Tuft of white between flanks and rump. Tibiae enveloped in white down feathers. Under-tail-coverts rufous with grayish edges. The base of the primaries and secondaries, both above and beneath, chestnut-red, rest purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Exactly like the male, but not so brightly coloured, lateral rectrices chestnut-purple, with a slight gray margin on tips, undertail-coverts, pale brown edged with white.

This species was discovered in Guatemala, by Delattre.

\*297. *AMAZILIA CYANURA*, Gould, Mon. Troch, 1850, vol. v., p. 315.

*Hemithylaca cyanura*, Cab. and Hein, Mus. Hein, 1860, t. iii., p. 38.

*Pyrrhophæna cyanura*, Gould, Int. Troch., 1861, p. 60.

*Blue-tailed Amazili*, Gould, Mon. Troch., vol. 5, p. 315.

*Le Pyrrhophène cyanure*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 308.

*Habitat*.—Guatemala, Nicaragua.

*Male*.—The only difference between this species and *A. mariae*, consists in the colour of the tail and upper and under-

tail-coverts which are dark steel blue, the under-coverts fringed with gray.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{4}$ . Bill,  $\frac{1}{8}$ .

The type of this species is in the British Museum.

## FAMILY IX. HELIANGELIDAE,

OR FAMILY OF SUN-ANGEL HUMMING BIRDS.

Size from small in the genus *Steganura* to large in the genera *Panoplitus*, *Clytolaema*, and *Topaza*. Bill of medium size, curved or straight, excepting in the genus *Lafresnaya*, in which it is long. Sheath of both maxilla and mandible smooth. Nasal covers partly exposed. Wings long and narrow, reaching nearly the end of tail. Outermost primary in the genera *Lafresnaya* and *Aglaeactis* very narrow. Tail more or less forked. In the genera *Erebenna*, *Aglaeactis*, and *Lafresnaya* the outermost rectrices are acutely pointed and curving inwardly. In *Steganura* they are long and ending with spatules. Tibiae more or less clothed, as in many of the species of the preceding family. In many species the tibiae are so enveloped with downy feathers that I was inclined to make a special family of them; but after careful consideration, I have come to the conclusion that it was better not to do so. Throat usually brilliant. Sexes usually unlike but not always.

TYPE: *Heliangelus*, Gould, Int. Troch., 1861, p. 132.

Range—Mexico to Bolivia and South Brasilia.

GENUS LXXXIII. **Margarochrysis**, Reich., Aufz der, Colib, 1854, p. 11.

POLYPLANETA, Heine, Journ. fur Ornith., 1863, p. 182.

TYPE: *T. laurescens*, Gould.

Bill short, stout and straight, slightly longer than the head. Nostrils covered by frontal plumes. Wings long, narrow and pointed, reaching nearly the end of tail. Tail short, slightly forked. Rectrices narrow. Median shortest, the next one slightly longer, the rest slightly longer than the last one, and of the same length. Tarsi partly clothed. Sexes unlike in colouration of plumage.

Habitat—Ecuador, Peru, and Bolivia.

298. MARGAROCHRYSIS AURESCENS, Gould, P.Z.S., 1846, p. 88.

*Polytmus aurescens*, Gray, Gen. Birds, vol. i., p. 108.

*Lampornis aurescens*, Bon. Cons. Gen. Av., 1850, vol. i., p. 72.

*Campylopterus aurescens*, Bon. Rev. and Mag. Zool., 1854, p. 250.

*Clytolaema aurescens*, Gould, Mon. Troch., vol. iv., p. 250.

*Banded Ruby*, Gould, Mon. Troch, vol. iv., p. 250.

*Le Clytolème à bande bleue sur le front*, Muls. Hist. Nat., Ois. Mou. 1876, t. ii., p. 225.

*Habitat*.—Ecuador, Peru, and Bolivia.

*Male*.—Forehead metallic greenish-blue, terminating in a point on the crown. Upside dark green passing to shining green on the rump and undertail-coverts. Median rectrices bronze-green, laterals chestnut-red tipped and margined with bronze-green. Chin black. Throat glittering green, golden on the sides. Breast deep rufous. Abdomen, flanks, and undertail coverts dark green, golden in some specimens. Vent grayish-white. Wings purple. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upside dark shining green. Median rectrices bronze-green, laterals chestnut tipped and margined with bronze-green, outermost ones chestnut, pale at tips. Chin brownish-black. Throat metallic golden-green. Breast rufous. Flanks and abdomen golden-green. Vent grayish-white. Wings purplish-brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

Type of female in my collection.

I have specimens of both sexes of this extremely rare species from Pebas. They were collected by Mr. Hauxwell. I have also two male specimens collected by Buckley, in Ecuador and in Bolivia.

It is a genus quite distinct from *Clytolaema*.

#### GENUS LXXXIV. *Clytolaema*, Gould, Int. Troch., p. 134.

HELIODOXA, Reich., Aufz. der Colib, 1853, p. 9.

PHAIOLAIMA, Reich., Aufz. der Colib, 1853, p. 9.

PHAEOLEMA, Gould, Mon. Troch., 1858, t. iv., pl. 268.

TYPE: *T. rubineus*, Gmelin.

Bill stout, straight, longer than the head. Nostrils covered by frontal plumes. Wings long, pointed, reaching the end of tail. Tail slightly forked, median rectrices shorter, laterals very slightly and gradually longer. Tarsi partly clothed. Hind toe and nail shorter than fore toe and nail. Sexes unlike. I have united the Genus PHAIOLAIMA to CLYTOLAEMA being unable to see any difference between them.

*Habitat*.—Brazil, Columbia, Ecuador.

299. CLYTOLAEMA RUBINEA, Gmel. Syst. Nat., 1788, vol. i.,  
p. 493.

*Trochilus obscurus*, Gmel. Syst. Nat., 1778, p. 495.

*Trochilus ruficaudatus*, Vieill. Nouv. Dict. vol. xxiii., p. 422.

*Ornismya rubinea*, Less. Ois. Mouch., 1829, p. 146.

*Mellisuga rubinea*, Gray, Gen. Birds, vol. i., p. 112.

*Helimaster rubineus*, Vieill. Ois. Dorés., pl. 27.

*Heliodoxa rubinea*, Reich., Aufz. der Colib, 1853, p. 9.

*Calothorax rubineus*, Burm. Th. Bras., 1856, vol. ii., p. 340.

*Brazilian Ruby*, Gould, Mon. Troch., vol. iv., p. 249.

*le Clytolème rubis-émeraude*, Muls., Hist. Nat., Ois. Mou., 1876, t. ii., p. 228.

*Habitat*.—Brazil.

*Male*.—Forehead brilliant metallic green, terminating in a point on the crown. Rest of crown and nape bronze-green. Rest of upperside reddish-golden. Median rectrices bronze with a line of rufous along the shaft of external web, terminating gradually before reaching the tips. Laterals deep chestnut tipped and margined on external webs with blackish bronze-green. Throat metallic ruby-red appearing black on chin in certain lights. Spot behind the eye white. Breast and sides of neck shining metallic emerald-green. Abdomen and flanks dull golden-green, showing the gray base of feathers. Undertail-coverts golden-green edged with rufous. Wings purplish-brown, base of inner webs of secondaries rufous. Bill black.

Total length,  $2\frac{6}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .



*Female*.—Upperside golden-green. Underside rufous, paler on throat. Flanks and sides of breast sparingly washed with golden-green. Lateral rectrices paler chestnut than in male, with tips pale buff. Rest of plumage like the male.

This species is common in Brazil.

Type of *Heliomaster rubineus*, Vieillot, in my Collection.

300. CLYTOLAEMA RUBINOIDES, Bourc. and Muls., Ann. Soc. Agri. Lyon., 1846, p. 322.

*Mellisuga rubinoides*, Gray, Gen. Birds, vol. i., p. 112.

*Heliomaster rubinoides*, Bon. Consp. Gen. Av., 1850, p. 70.

*Phaiolaima rubinoides*, Reich., Aufz. der Colib., 1853, p. 9.

*Heliodoxa rubinoides*, Reich., Troch. Enum., 1855, p. 6.

*Phaeolaema granadensis*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 30.

*Lilac Throat*, Gould, Mon. Troch., vol. iv., p. 268.

*le Phaeolème rubinoïde*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 222.

*Habitat*.—Columbia.

*Male*.—Head dark grass-green, with the front and a line in the centre of the crown brilliant metallic green. Upperside dark green. Uppertail-coverts bronze, coppery in some specimens. Tail bronzy-green. Shafts of rectrices reddish-orange. Chin and sides of neck shining green. Spot behind the eye white. Centre of throat metallic purple. Underside dark buff glossed with green on sides of breast and flanks. Undertail-coverts pale green, margined with buff. Base of inner web of secondaries and outer web of first primary rufous. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $1\frac{3}{8}$ .

*Female*.—Differs from the male by its throat, gray minutely and profusely spotted with green, and a minute pale buff spot on tips of lateral rectrices. It is also slightly smaller.

This species is common in Columbia.

301. CLYTOLAEMA AEQUATORIALIS, Gould, Mon. Troch., 1860, vol. iv., p. 269.

*Phaeolema rubinoides*, Selater, P.Z.S., 1859, p. 145.

*Equatorial Lilac-throat*, Gould, Mon. Troch., vol. 4, p. 269.

*le Phaeolème de l'Equateur*, Muls., Hist. Nat. Ois. Mou., 1876, t. 2, p. 223.

*Habitat*.—Ecuador.

*Male*.—Very closely allied to the preceding species, but larger. It has no metallic feathers on the crown of the head, which is dark green. The metallic spot of throat is of a rose colour, between purple and ruby.

Total length, 5 in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $1\frac{3}{8}$ .

*Female*.—Like the male, excepting the throat, which is pale rufous, spotted with green.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

My specimens were collected in Ecuador, by Buckley.

\*302. CLYTOLAEMA CERVINIGULARIS, Salv., Ann. Mag. Nat. Hist., 1891, p. 377.

*Phaeolema cervinigularis*, Salv., Ann., Mag. Nat. Hist., 1891, p. 377.

*Rosy-throat*.

*le Phaeolème à gorge rose*.

*Habitat*.—Ecuador?

*Male*.—Similar to *O. rubinoides*, as to the colour of the crown, which has a central glittering green stripe. In size, it equals *O. aequatorialis*, but differs from that species in the colour of the crown, and from both, in having the chin pale chestnut, like the sides of the throat, with hardly a trace of green.

Total length, 5 in. Wing, 2-9. Tail, 2. Bill, 1-3.

Only two specimens are known, one "Ex Gould Coll.," and the other, from Mess. Godman and Salvin Museum, both now in the British Museum.

GENUS LXXXV. **Panoplites**, Gould, Mon. Troch., 1854, pt. 8.

BOISSONEAUA, Reich., Aufz des Col., 1854, p. 11 (descr nulla).

GALENIA, Muls. and Verr., Class. Troch., 1865, p. 47.

CALLIDICE, Muls. and Verr., Class. Troch., 1865, p. 65.

ALOSIA, Muls., Ann. Soc. Lynn. Lyon., 1875, vol. xxii, p. 213.

TYPE: *P. flavescens*, Loddiges.

Bill stout, straight, slightly longer than the head. Nostrils exposed. Wings long, pointed, reaching the end of tail. Tail forked, rectrices wide, the middle ones shorter, lateral and outermost ones gradually longer. Size large. Tarsi clothed. Sexes similar in plumage.

*Range*.—Venezuela, Columbia, Ecuador, and Peru.

303. *PANOPLITES FLAVESCENS*, Lodd, P.Z.S., 1832, p. 7.

*Ornismya paradisea*, Boiss, Rev. Zool., 1840, p. 6.

*Mellisuga flavescens*, Gray, Gen. Birds, vol. i., p. 112.

*Amazilia flavescens*, Bon. Consp. Gen. Av., 1850, vol. 1, p. 78.

*Boissonneaua flavescens*, Reich., Troch., Enum., p. 8.

*Panoplites flavescens*, Gould, Mon. Troch., vol. ii., p. 111.

*Yellow-fronted Panoplites*, Gould, Mon. Troch., vol. ii., p. 111.

*le Panoplite flavescens*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii, p. 335.

*Habitat*.—Venezuela, Colombia, and Ecuador.

*Male*.—Crown of head and throat brilliant golden-green. Upperside shining dark green. Uppertail-coverts purplish-bronze. Median rectrices greenish-bronze. Laterals light buff, margined and tipped with greenish-bronze. Sides of throat and breast dark green, appearing black in certain lights. Flanks and abdomen green, edged with grayish buff. Vent and line on sides of flanks white. Undertail-coverts pale buff with light green in centre. Base of secondaries, outer web of first primary, and underwing-coverts chestnut. Wings purple-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Like the male without the bright metallic colour of head and throat, which are dark green.

I have specimens of this species from Columbia, Ecuador and Merida, "Venezuela."

304. *PANOPLITES MATTHEWSI*, Bourc., P.Z.S., 1847, p. 43.

*Mellisuga matthewsi*, Gray, Gen. Birds, vol. i., p. 112.

*Heliodoxa matthewsi*, Reich., Aufz. der Col., 1853, p. 9.

*Boissonneaua matthewsi*, Reich., Troch. Enum., 1855, p. 8.

*Panoplites matthewsi*, Gould, Mon. Troch., vol. ii., p. 112.

*Matthew's Panoplites*, Gould, Mon. Troch., vol. ii., p. 112.

*le Clytolème de Matthews*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 231.

*Habitat*.—Ecuador, Peru.

*Male*.—Head and throat brilliant metallic golden-green. Upperside dark golden-green, coppery-bronze on lower part of uppertail-coverts. Median rectrices greenish-bronze. Laterals cinnamon, tipped with greenish-bronze. Spot behind the eye buff. Underside deep chestnut-red, washed with golden-green feathers on flanks. Anal region white. Thighs and undertail-coverts buff. Wings purplish-brown; base of inner webs of secondaries, and web of first primary chestnut-red. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

This rare species was dedicated by Loddiges to his traveller, Mr. Matthews, who died of fever in South America.

305. *PANOPLITES JARDINEI*, Bourc., Compt. Rend., 1851, t. xxii., p. 187.

*Florisuga jardinei*, Reich., Aufz. der Colib., 1853, p. 14.

*Panoplites jardinei*, Gould, Mon. Troch., vol. ii., p. 110.

*Jardine's Panoplites*, Gould, Mon. Troch., vol. ii., p. 110.

*le Panoplite de Jardine*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 334.

*Habitat*.—Ecuador.

*Male*.—Crown of head brilliant metallic dark blue with purplish reflections. Rest of head and neck velvety-black. Rest of upperside brilliant metallic bluish-green. Uppertail-coverts and median rectrices purple-bronze. Laterals white, margined and tipped with purplish-bronze. Chin very dark blue. Throat and sides of neck velvety-black. Breast and abdomen dark brilliant metallic purple-blue. Sides of breast and flanks glittering green. Undertail-coverts purplish-black edged with grayish-white. Upper wing-coverts shining golden-green. Wings purplish-brown, inner webs of secondaries, outer web of first primary, and under wing-coverts chestnut. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing, 3. Tail, 2. Culmen,  $\frac{6}{8}$ .

This splendid species was discovered in Ecuador by Bourcier, who dedicated it to Sir William Jardine, the celebrated Ornithologist. My specimens were collected in Ecuador, by Buckley.

GENUS LXXXVI. **Topaza**, Gray, List. Gen. Birds, 1840, p. 13.

POLYTMUS, Boié. Isis., 1831, p. 545.

LAMPORNIS, Reich., Syst. Av. Nat., 1849, t. xxxix.

TYPE: *T. pella*, Linné.

Bill stout, curved and acutely pointed, longer than the head. Wings long reaching the tips of lateral rectrices. Tail pointed. Median rectrices of the same length as outermost ones. Feather next to the middle one, narrow and elongated, twice as long as the longest lateral, and crossing each other at the tips of the other rectrices, the two next to the outermost, slightly and gradually longer than the middle and outermost ones. Tarsi bare. Feet large. Sexes unlike.

*Habitat*.—Guiana and Rio Negro on the Amazon.

306. *TOPAZA PELLA*, L., Syst. Nat., 1766, vol. i, p. 189.

*Trochilus paradiseus*, L., Syst. Nat., 1766, vol. i, p. 189.

*Falcinellus gutture viridi*, Klein., Aves, N. xv., p. 103.

*Polytmus surinamensis*, Briss. Orn., t. iii., p. 690.

*Certhia surinamensis*, Spal., Vog., t. i., p. 13.

*De Topaz Kehlige Kolibri*, Schmid., Vog., t. xlviii., p. 61.

*Colibri à longue queue de Cayenne*, Buff, Hist. Nat. Ois., t. vi., p. 46.

*Lampornis pella*, Jard, Nat. Libr. Hum. Birds, vol. ii., p. 155.

*Topaz Humming Bird*, Shaw, Zool., Misc., pl. 513.

*Crimson Topaz*, Gould, Mon. Troch., vol. ii., p. 66.

*Le Colibri-topaze*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 124.

*Habitat*.—Guiana.

*Male*.—Head, lores, and a broad line encircling the throat jet-black. Upperside shining purple-red, changing to orange-red on rump. Uppertail-coverts shining gold. Median

rectrices shining gold, greenish at tips, next one on each side, dark purple passing to brownish-black on the elongated parts, the other three, including outermost one, reddish-buff. Throat glittering metallic gold with topaz hue in the centre. Lower part of throat, abdomen, and flanks metallic crimson. Wings dark purple; inner primaries, excepting the tips and the secondaries, cinnamon. Bill black.

Total length,  $7\frac{2}{8}$  in. Wing,  $3\frac{2}{8}$ . Tail,  $3\frac{6}{8}$ . Culmen, 1.

*Female*.—Upperside shining green with bronze tinge. Uppertail-coverts shining green. Median rectrices dark greenish bronze at base, passing to purplish-black at tips, the two next purplish-black with buff tip on the last, the two outermost ones purplish at base, rest buff. Underside shining green with golden tinge. Centre of throat metallic-red. Wings purplish-brown. Underwing-coverts chestnut. Bill black.

Total length,  $5\frac{2}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen, 1.

This handsome species is not rare in Guiana. It frequents the densest parts of the tropical forests, near the rivers.

307. TOPAZA PYRA, Gould, P.Z.S., 1846, p. 85.

*Fiery Topaz*, Gould, Mon. Troch., vol. ii., p. 67.

*le Colibri pyra*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 128.

*Habitat*.—Rio Negro, Upper Amazon.

*Male*.—Head and neck velvety-black. Upperside including upperwing-coverts glittering red, passing to orange-red on rump. Uppertail and undertail-coverts, luminous golden-green. Median rectrices bronze-green, darker at tips. Laterals, including the elongated ones, deep purple. Throat brilliant golden-green, bright orange-topaz in centre. A broad band of velvety-black on breast, and sides of neck encircling the throat. Lower part of breast, abdomen, and flanks, metallic fiery-red. Underwing-coverts, deep buff. Wings, brown with a bronzy tinge. Bill black.

Total length,  $7\frac{6}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $4\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Similar to that of *T. pella*; but has the lateral rectrices dark violet, the inner webs of the external feathers rufous, and the medians, greenish-bronze at base, with tips violet-black.

This species is extremely rare. It was discovered by Mr. Thirion, on the Upper Rio Negro.



Lately, Buckley sent some specimens, which he collected on the Upper Amazon.

My specimens were collected by him.

GENUS LXXXVII. **Lamprolaema**, Reich., Aufz. der Colib., 1853, p. 9.

TYPE: *O. rhami*, Lesson.

Bill straight, slender, with tip acute, and about the length of the head. Feathers of forehead projecting on culmen and partially hiding the nostrils. Wings long, ample, reaching the end of tail. Tail long, and forked, rectrices broad. Median shortest, laterals slightly, and gradually longer, pointed at tips. Feet large. Tarsi clothed. Sexes unlike.

*Habitat*.—Mexico and Guatemala.

308. LAMPROLAEMA RHAMI, Less., Rev. Zool., 1838, p. 315.

*Mellisuga rhami*, Gray, Gen. Birds, vol. i, p. 112.

*Lampornis rhami*, Bon., Consp. Gen. Av., 1850, p. 72.

*Delattria rhami*, Bon., Rev. and Mag. Zool., 1854, p. 253.

*De-Rham's Garnet*, Gould, Mon. Troch., vol. ii, p. 61.

*le Lamprolème de Rham*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 218.

*Habitat*.—Mexico and Guatemala.

*Male*.—Upperside shining green, golden in some specimens on back, rump, and uppertail-coverts. Tail purple. A spot behind the eye white. Throat metallic amethyst-red, surrounded with velvety-black. Breast brilliant metallic dark blue. Rest of underside blackish-brown washed with green. Undertail-coverts purplish-brown washed with green. Greater wing-coverts, secondaries, and basal two-thirds of primaries, chestnut-red with brownish tips, remainder purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing, 3. Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Upperside golden-green. Underside grayish-brown washed sparingly with green on sides of breast and flanks. Very adult specimens have in the centre of throat a spot of metallic amethyst-red feathers. Tail purple, with tips of the two outermost ones dark gray.

Total length, 4in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{1}{16}$ .

*Young Male*.—Scarcely out of nest, has the colouration of an adult male, the wings longer than the tail and the chin black.

Total length,  $3\frac{1}{2}$ in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{16}$ .

This very fine species was discovered by Delattre.

I have collected fine series of both sexes in the temperate and cold countries of Mexico, where it is abundant.

GENUS LXXXVIII. **Coeligena**, Less., Ind. and Syn. Ois.

Gen. Troch, 1832, p. 18.

TYPE:—*O clemenciae*, Lesson.

Bill straight, longer than the head. Wings long reaching the end of tail. Tail ample. Rectrices broad, rounded, and of even size. Laterals in both sexes, broadly tipped with white. Tarsi clothed. Sexes unlike.

*Habitat*.—Mexico.

309. COELIGENA CLEMENCIAE, Less., Ois. Mouch., 1829, p. 216.

*Lampornis clemenciae*, Less., Tratié. Ornith., 1831, p. 279.

*Mellisuga clemenciae*, Gray, Gen. Birds, vol. i., p. 112.

*Delattria clemenciae*, Bon. Consp. Gen. Av., 1850, p. 70.

*Blue-throated Cazique*, Gould, Mon. Troch., vol. ii., p. 60.

*le Coeligène de Clémence*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 181.

*Habitat*.—Mexico.

*Male*.—Upperside bronzy-green, brownish on rump. Upper-tail-coverts greenish-black. Tail purplish-black, the two outermost rectrices broadly tipped with white. Throat metallic azure-blue. Lines from maxilla under the eye, and one behind, white. Ear-coverts brown. Underside dark ashy-gray, washed with green on sides of throat, breast, and flanks. Vent white. Undertail-coverts greenish-gray edged with white. Wings silky-brown. Bill black.

Total length,  $5\frac{3}{8}$ in. Wing, 3. Tail,  $2\frac{3}{8}$ . Culmen, 1.

*Female*.—Upperside like the male. Underside gray sparingly washed with green feathers on breast and flanks.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{5}{8}$ . Tail 2. Culmen, 1.

*Young Male*.—Coloured like the female with a yellowish-grey throat.

This species was dedicated by Lesson to his wife, Mrs. Clemence Lesson, daughter of Mr. Dumont de Sainte Croix, author of the Ornithological Notices in the Dictionary of Natural Sciences.

It is common in Mexico, where I collected many specimens in the high lands of that country.

GENUS LXXXIX. *Delattria*, Bon. Consp. Gen. Av., 1850, vol. i., p. 70.

*CHARIESSA*, Heine, Journ. fur Ornith., 1863, p. 178.

*HIMELIA*, Muls., Cat. Ois. Mouch., 1875, p. 7.

TYPE: *O. henrica*, Lesson.

Bill short, straight, scarcely longer than the head. Wings long, reaching the end of the tail. Tail very slightly forked, median rectrices slightly shorter than the lateral, all of them pointed at tips. Tarsi clothed. Sexes unlike.

*Habitat*.—Mexico, Guatemala and Nicaragua.

This genus was dedicated by Bonaparte, to Delattre, the celebrated Traveller Naturalist.

310. *DELATTRIA HENRICI*, Less. and Delatt. Rev. Zool, 1839, p. 17.

*Topaza henrici*, Gray, Gen. Birds, vol. i., p. 110.

*Lamprolaema henrici*, Reich., Aufz. der Colib., 1853, p. 9.

*Coeligena henrici*, Cab. and Hein, Mus. Hein, 1860, t. iii., p. 15.

*Chariessa henrici*, Heine, Journ. fur Ornith., 1863, p. 178.

*Henri Delattre's Cazique*, Gould, Mon Troch., vol. ii., p. 62.

*le Coeligène de Henri*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 183.

*Habitat*.—Mexico, Guatemala.

*Male*.—Upperside bronzy-green passing into brownish-purple on rump. Uppertail-coverts and tail silky black with a purplish tinge. Throat metallic lilac-red. Behind the eye, a stripe of white. Ear-coverts black. Underside dark gray washed with greenish-bronze feathers on sides of throat, breast, and flanks. Undertail-coverts dark bluish-bronze margined with gray. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing, 2 $\frac{3}{8}$ . Tail, 2. Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside bronzy-green, brownish on head. Tail purplish-black, laterals broadly tipped with gray. Underside brownish-gray, buffy on throat. Smaller than male.

This rare species was discovered by Delattre, and dedicated by him and Lesson, to Henri Delattre, brother of the former.

I have collected a fine series of this species in the highlands of Mexico. It takes its food chiefly on the flowers of orchids and bromeliacae, so common on the oak and pine trees.

\*311. DELATTRIA MARGARITAE, Salv. and Godm. Ibis, 1889,  
p. 239.

*Margarite's Cazique,*  
*le Cacique de Marguerite,*

*Habitat*.—Omiteme, in Sierra Madre del Sur, Mexico, Pacific side.

*Male*.—*D. henrici*, affinis, sed gutture violaceo (nec rosaceo) facile distinguenda.

This rare species was dedicated to Mrs. Herbert Smith, by Messrs. Godman and Salvin.

Type in the British Museum.

312 DELATTRIA VIRIDIPALLENS, Bourc. and Muls., Ann. Soc. Lyon., 1846, p. 321.

*Polytmus viridipallens*, Gray, Gen. Birds, vol. i., p. 108.

*Delattria viridipallens*, Bon., Consp. Gen. Av., 1850, p. 70.

*Agyrtria viridi-pallens*, Reich., Aufz. der Colib, 1853, p. 10.

*Thaumantias viridi-pallens*, Bon., Rev. and Mag. Zool., 1854, p. 255.

*Chariessa viridipallens*, Heine, Journ. fur Ornith., 1863, p. 178.

*Coeligena viridipallens*, Mul., Hist. Nat. Ois. Mou., 1874, vol. i., p. 185.

*Green-throated Cazique*, Gould, Mon. Troch., vol. ii., p. 63.

*le Coeligène vert d'eau*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 185.

*le Cacique, du Guatemala.*

*Habitat.*—Guatemala.

*Male.*—Top of head metallic dark green. Upperside bronzy-green changing to coppery-green on the rump. Median rectrices brownish-gray with purplish reflections. Laterals gray. Throat pale metallic green. Stripe behind the eye white. Ear-coverts brownish-green. Breast white. Abdomen grayish-white with a rufous tinge. Sides of breast and flanks shining green, washed with gray on the latter. Undertail-coverts greenish-gray edged with pale gray. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female.*—Upperside bronzy-green. Underside white, washed with green on sides of breast and flanks. Rest of plumage like the male.

Total length, 4 in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

This species was discovered in Coban, Guatemala, by Delattre.

The types are now in the New York Museum of Natural History (Ex. Coll. Elliott).

\*313. DELATTRIA SYBILLE, Salv and Godm. Ibis, 1892, p. 327.

*Nicaraguan Cazique.*

*le Cacique du Nicaragua.*

*Habitat.*—Matagalpa "Nicaragua."

*Male.*—*D. viridipallenti* proximè affinis, sed pectore et hypochondriis viridibus nec albis gula fere concoloribus; tectricibus subcaudalibus et rectricibus pallide griseis, et dorso imo viridi nec cupreo tincto, facile distinguenda.

Long tota, 4-5, poll. Angl., alae, 2-6, candal, rectr med, 1-3, rect. lat., 1-7.

*Female.*—Unknown.

This species is closely allied to *D. viridipallens*. It was discovered at Matagalpa, Nicaragua, by Mr. W. B. Richardson.

GENUS XC. **Oreopyra**, Gould, Int. Troch., 1861, p. 141.

TYPE: *O. leucaspis*, Gould.

Bill short, stout, straight, scarcely longer than the head. Wings long, reaching nearly the end of the tail. Tail long, forked. Median rectrices the shortest, lateral and outermost ones slightly and gradually longer, and pointed. Tarsi clothed. Feet small. Sexes unlike.

*Habitat*.—Guatemala, Costa Rica, Veragua.

314. OREOPYRA LEUCASPIS, Gould, Mon. Troch., vol. iv., p. 264.

*White-throated Oreopyra*, Gould, Mon. Troch., vol. iv., p. 264.

*l'Oréopyre à gorge blanche*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 161.

*Habitat*.—Chiriqui.

*Male*.—Top of head brilliant metallic silvery-green. Upper-side shining green, golden in some lights. Uppertail-coverts dark shining green. Tail bluish-black. Throat silky-white. Stripe behind the eye white. Breast and upper part of abdomen brilliant metallic green. Abdomen and flanks grayish-brown. Undertail-coverts brownish-green, edged with white. Wings purple-brown. Bill black.

Total length, 4in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Probably like the male, but paler in colouration. Contrary to the opinion of many authors, I think that the female of this species is not buff underside. However, until I can ascertain if I am right or wrong, I shall give the description of the bird which I have in my collection, sent to me by Arcé, as a female.

Upperside golden-green. Uppertail-coverts shining green. Median rectrices bronze-green. Laterals bronze-green at base, passing to bluish-black with broad white tips on the two outermost ones. Line behind the eye white. Ear-coverts black. Underside reddish-buff. Bill black.

This rare species was discovered by Mr. Warzewicz, on the Volcano of Chiriqui, Veragua.



315. OREOPYRA CINEREICAUDA, Lawr., Ann. N.Y. Lyc. Nat. Hist., vol. viii., p. 485.

*Grey-tailed Humming-bird*, Gould, Mon. Troch. Suppl., 1886, p. 10.

*l'Oréopyre à queue cendrée*, Muls. Hist. Nat. Ois. Mou., 1878, t. iv., p. 165.

*Habitat*.—Costa Rica.

*Male*.—Very much like the preceding species, from which it differs only by the tail, which is longer and ashy-white with dark tips.

This extremely rare species was discovered by Mr. García, near Cartago, Costa Rica. I have only one specimen which I killed at Navarro, Costa Rica, in May, 1877.

*Female*.—Unknown, although it has been described as *O. castaneiventris*, by Lawrence; but I am in doubt about it as for the female of *O. leucaspis*.

316. OREOPYRA HEMILEUCA, Salv., P.Z.S., 1864, p. 584.

*Oreopyra hemileuca*, Boucard, P.Z.S., 1878, p. 69.

*Coeligena hemileuca*, Elliot, Syn. H. Birds, 1879, p. 31.

*White-bellied Cacique*, Gould, Mon. Troch., Suppl., 1886, p. 8.

*l'Oréopyre à gorge d'un lilas violacé*, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 167.

*Habitat*.—Costa Rica.

*Male*.—Top of head brilliant metallic green. Neck dark green, black in certain lights. Back dark shining green passing to golden on rump and uppertail-coverts. Median rectrices bronze-green. Laterals bronze-green, darker near the tips which are whitish-gray. Chin and sides of throat metallic green. Throat metallic amethyst. Breast and abdomen pure white. Sides of breast and flanks golden-green. Undertail-coverts pale greenish-brown in centre, edged with white. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wings,  $2\frac{2}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Same as the male, excepting the throat which is white, spotted with green.

This beautiful and exceedingly rare species was discovered by Arcé, at Turrialba, Costa Rica.

I collected two male specimens at Naranjo, Costa Rica, in April, 1877.

317. OREOPYRA CALOLAEMA, Salv., P.Z.S., 1864, p. 584.

*Metallura castaneiventris*, Reich., Aufz. der Colib, 1853, p. 8.

*Anthocephala castaneiventris*, Gould, Mon. Troch., vol. iii., p. 203.

*Purple-throated Humming-bird*, Gould, Mon. Troch., Suppl., 1886, p. 9.

*l'Oréopyre à queue d'un bleu d'acier*, Muls., Hist. Nat., Ois. Mou., 1878, t. iv., p. 165.

*Habitat*.—Veragua.

*Male*.—Top of head brilliant metallic silvery-green. Upper-side dark shining bronzy-green. Uppertail-coverts dark shining green. Tail bluish-black. Throat metallic violet-red. White line behind the eye. Auriculars very dark green, appearing almost black. Breast shining green, passing to golden-green on flanks. Abdomen brown. Undertail-coverts dark green, margined with grayish-white. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside shining grass-green. Median rectrices bronze-green. Laterals bronze-green at base, passing to bluish-black, the two outermost ones tipped with grayish-white. Underside reddish-buff. Undertail-coverts brownish-green, margined with gray or buff. Wings purplish-brown. Bill black.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

This fine species was discovered by Arcé, in Veragua, and it is to this species, and to the next, that I attribute all the reddish-buff females.

318. OREOPYRA PECTORALIS, Salv., Ann. Mag., Nat. Hist., 1891, p. 377.

*Oreopyra calolaema*, Boucard, P.Z.S., 1878, p. 69.

*Lilac throated Humming-Bird*.

*l'Oréopyre à gorge lilas*.

*Habitat*.—Costa Rica.

*Male*.—Similar to that of *O. calolaema*, in all respects,

except that the breast, when viewed from in front, is nearly black, and not glittering green.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Young Male*.—Has the plumage of the adult male, with only a few metallic feathers on throat.

I collected a fine series of this handsome species in 1877, at Navarro, Rancho redondo, and on the Volcano of Irazu, Costa Rica.

I am of the same opinion as Mr. Salvin, that it can be considered as a distinct species of *O. calolaema*, among which it has been improperly mixed by myself and others.

#### GENUS XCI. **Warszewiczia**, Nov. Gen.

TYPE: *H. viola*, Gould.

Bill straight, slender, shorter than the head. Feathers of forehead projecting on culmen, and covering the nostrils. Wings moderately long, reaching between the second and third lateral rectrices. Tail long and much forked in males, median rectrices broad and shortest, the two next gradually longer, the third lateral, one fourth longer than the second, and the outermost one twice as long as the medians. Tarsi partially clothed. Sexes similar.

*Habitat*.—Ecuador.

319. WARSZEWICZIA VIOLA, Gould, P.Z.S., 1853, p. 61.

*Parzudukia viola*, Reich., Aufz. der Colib., 1853, p. 12.

*Heliotrypha viola*, Gould, Mon. Troch., vol. iv., p. 241.

*Heliotryphon viola*, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 74.

*Viola Star-frontlet*, Gould, Mon. Troch., vol. iv., p. 241.

*l'Hélotryphe violette*, Muls., Hist. Nat., Ois. Mou., 1876, t. iii., p. 98.

*Habitat*.—Ecuador.

*Male*.—Forehead luminous dark green. Upperside dark shining green with golden reflections, when viewed from behind. Median rectrices bronze-green, the two next bronze-green on outer webs, with tips purplish-black, outermost one purplish-black, with a very slightly marked green-bronze tip. Throat metallic amethyst with purplish reflections.

Breast luminous bluish-green. Flanks and abdomen shining green. Vent rufous. Undertail-coverts green, edged with rufous. Wings purplish-brown. Bill black.

Total length, 5in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Coloured like the male, but not so brilliant, the luminous feathers of forehead are of a lighter green. The throat is dark green, appearing brownish-black in certain lights, with the centre metallic bluish-violet, the lower part of the abdomen and undertail-coverts rufous with the centre of feathers green.

Total length,  $4\frac{1}{2}$ in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

This fine species was discovered in Ecuador by Mr. Warszewicz, to whom we are indebted for many new species of humming birds, chiefly from Colombia, Ecuador, Bolivia, Veragua, etc. Being sufficiently distinct in generic forms from *Heliotrypha*, I have made with it a new genus, which I have named *Warszewiczia*, in memory of that eminent Collector and Naturalist.

GENUS XCII. *Heliotrypha*, Gould, Int. Troch., 1861, p. 131.

PARZUDAKIA, Reich., Aufz. der Colib., 1853, p. 12.

HELIOTRYPHON, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 74.

NODALIA, Mulsant, Cat. Ois. Mou., 1875, p. 23.

HELYMUS, Muls., Cat. Ois. Mou., 1875, p. 23.

TYPE: *T. exortis*, Frazer.

Bill straight, slender, about the length of the head. Wings long, nearly reaching the end of tail. Tail long and forked. Rectrices broad and rounded at tips, median shortest, lateral and outermost ones gradually longer. Tarsi partially clothed. Hind toe shorter than the middle one. Sexes unlike.

*Habitat*.—Colombia and Ecuador.

320. *HELIOTRYPHA EXORTIS*, Fraser, P.Z.S., 1840, p. 14.

*Ornismya parzudaki*, Long. and Parz., Rev. Zool., 1840, p. 72.

*Mellisuga parzudaki*, Gray, Gen. Birds, vol. i., p. 112.

*Helianthus parzudaki*, Bon. Consp. Gen. Av., 1850, vol. i., p. 76.

*Eriopus exortis*, Bon. Consp. Gen. Av., 1850, p. 80.

*Parzudakia dispar*, Reich. Aufz. der Colib., 1853, p. 12.

*Heliotrypha parzudaki*, Bon. Rev. and Mag. Zool., 1854, p. 252.

*Heliotryphon parzudaki*, Cab. and Hein. Mus. Hein., 1860, t. iii., p. 74.

*Parzudaki's Star-frontlet*, Gould, Mon. Troch., vol. iv., p. 240.

*l' Héliotryphe de Parzudaki*, Muls., Hist., Nat. Ois. Mou., 1876, t. iii., p. 96.

*Habitat*.—Colombia, and Ecuador.

*Male*.—Spot on forehead luminous green. Upperside shining dark green, with a bronzy tinge on head and upper-tail-coverts. Median rectrices dark bronzy-green, laterals purplish-black. Chin dark metallic green appearing almost black, and followed by a spot metallic purplish-blue. Centre of throat, beginning just under the blue of chin, metallic purple-crimson, surrounded with black. Breast and sides of neck brilliant metallic green. Abdomen and flanks shining green, nearly black in certain lights, in the centre of abdomen, the feathers are edged with grayish buff. Vent and undertail-coverts pure white. Wings purple. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{4}$ . Tail, 2. Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside bronzy green. Tail like the male with tips of laterals, narrowly edged with white. Throat white, with small brownish spots, and encircled with brownish-black, remainder of underside shining green or golden-green with buffy-gray on centre of abdomen.

Total length, 4 in. Wing,  $2\frac{3}{4}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

This species is very abundant in Colombia.

321. *HELIOTRYPHA MICRASTUR*, Gould, Ann. and Mag. Nat. Hist., 1872, p. 195.

*Helymus micrastur*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 93.

*Ecuadorian Star-frontlet*, Gould, Mon. Troch. Suppl., 1886, p. 31.

*l' Hélyme à gorge brillante*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 94.

*Habitat*.—Ecuador.

*Male*.—Spot on forehead luminous green. Upperside shining bronzy-green, bronzy on uppertail-coverts. Median rectrices dark bronzy-green. Laterals bronzy-black. A small spot behind the eye white. Chin and sides of throat dark green appearing almost black. Centre of throat metallic fiery-red. Breast flanks and abdomen dark shining green, most brilliant on breast in certain lights, centre of abdomen grayish-buff. Undertail-coverts white. Wings purplish-brown. Bill black.

Total length, 4in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen,  $\frac{9}{16}$ .

*Female*.—Like the male excepting the throat which is white in the centre, surrounded with green feathers appearing dark brown in certain lights. This fine and rare species was discovered in Ecuador, by Buckley. My specimens are from him.

322. *HELIOTRYPHA BARRALI*, Muls. and Verr. Ann. Soc. Linn. Lyon., 1868, vol. xvii., p. 106.

*Helianthus squamigularis*, Gould, P.Z.S., 1871, p. 503.

*Nodalie barrali*, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 100.

*Olive throated Humming-bird*, Gould, Mon. Troch. Suppl., 1886, p. 32.

*la Nodalie de Barral*, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 100.

*Habitat*.—Colombia.

*Male*.—Top of head very dark green, almost black in certain lights. Throat pale metallic olive-green, silvery in certain lights, margined with black. Rest of plumage shining grass-green, most brilliant on breast. Wings purplish-brown. Median rectrices bronzy-green, laterals blue-black. Undertail-coverts green in the centre, edged with grayish-white. Bill black.

Total length,  $4\frac{3}{4}$ in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Unknown; but probably like the preceding species.



The type of this rare species is in the Museum of New York.—“Ex Coll. Elliot.”

I possess a fine male of this species, from which my description was made.

323. HELIOTRYPHA SPECIOSA, Salv., Ann. and Mag., Nat. History, 1891, p. 376.

*Olive-green throated Star-frontlet.*

*la Nodالية à gorge d'un vert-olive.*

*Habitat.*—Colombia.

*Male.*—Very similar to *H. baralli*, but with a longer bill, and the throat of a more glittering olive-green without the leaden or silvery hue of that species, the feathers of the breast are rather more conspicuously white at the base, but this character is also seen in *H. barrali*.

Total length, 5in. Wing, 2.5. Tail, central rectrices, 1.45; lateral, 1.6. Bill, 1.

Type, Ex. Coll. Salvin and Godman, in the British Museum.

324. HELIOTRYPHA SIMONI; Boucard, Humming Bird, 1892, vol. ii., p. 76.

*Simon's Star Frontlet.*

*la Nodالية de Simon.*

*Habitat.*—Colombia.

*Male.*—Spot on forehead liminous golden-green. Upper-side shining green with bronze reflections. Median rectrices bronze-green, lateral and outermost ones steel-blue. Throat luminous pale golden-green, very brilliant, sides of throat very dark green, appearing almost black. Breast, abdomen, and flanks shining green. Undertail-coverts gray with green tips. Wings bluish-purple. Bill black.

Total length,  $4\frac{2}{8}$ in. Wing,  $2\frac{2}{8}$ . Tail, 2. Culmen,  $\frac{5}{8}$ .

*Female.*—Unknown. It is closely allied to *H. speciosa*, Salv; but the colour of the throat is distinct. It is a good species if *H. speciosa*, is considered as distinct from *H. barrali*, if not, the two must be considered as varieties of *H. barrali*.

Type in Boucard's Museum.

GENUS XCIII. **Heliangelus**, Gould., Int. Troch., 1861,  
p. 132.

*Anactoria*, Reich., Aufz. der Colib., 1853, p. 12.

*Diotimia*, Reich., Aufz. der Colib., 1853, p. 12.

*Peratus*, Muls., Cat. Ois. Mou., 1875, p. 23.

TYPE: *O. clarrisae*, Longuemare.

Bill straight, slender, about the same length as the head. Wings long, reaching the end of tail. Tail slightly forked. Median rectrices slightly shorter than the others. Tarsi partially clothed. Hind toe and nail of the same length as the middle toe and nail. Gorget luminous in males, and encircled beneath with a band of white or buff in both sexes. Sexes unlike in plumage?

*Habitat*.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

325. **HELIANGELUS CLARISSAE**, Long, Rev. Zool., 1841,  
p. 306.

*Mellisuga clarissae*, Gray, Gen. Birds, vol. i., p. 112.

*Anactoria clarissae*, Reich., Aufz. der Colib., 1853, p. 12.

*Anactoria libussa*, Reich., Aufz. der Colib., 1853, p. 12.

*Heliangelus taczanowski*, Pelz., Ibis., 1877, p. 338.

*Sun Angel*. Gould, Mon. Troch., vol. iv., p. 242.

*l'Héliangèle de Clarisse*, Muls., Hist. Nat., Ois. Mou., 1876,  
t. iii., p. 85.

*Habitat*.—Colombia.

*Male*.—Spot on forehead, luminous dark green. Upper-side dark bronzy-green, appearing almost black on head in certain lights. Median rectrices bronzy-green, next two, black with the edge of external webs bronzy-green, the two outermost ones black. Chin, lores, and sides of head black. Throat metallic amethystine-violet, beneath which is a narrow band of white, succeeded by one of luminous green. Abdomen and flanks shining-green, mottled with buff. Undertail-coverts white with the centre bronzy-green. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—? Upperside like the male with very minute white tips on lateral rectrices. Throat black with metallic amethystine-lilac feathers in the centre, rest like the male.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{5}{8}$ .

I think that the specimens described by all the authors as females with the throat black with mottled brown are only young; because I have lately received authentic females from the two species, *H. spencei* and *H. mavors* with the colours exactly disposed as in these species. It is abundant in Colombia. It was dedicated by Mr. de Longuemare, to Mrs. Clarisse Parzudaki.

326. HELIANGELUS HENRICI, Boucard, H. Bird, 1891, vol. i., p. 26.

*Whitely's Sun Angel.*

*l' Héliangèle de Whitely.*

*Habitat*.—Ecuador.

*Male*.—Spot on forehead luminous dark-green. Upperside, including tail-coverts golden-green. Median rectrices bronzy-green as in *H. Clarissae*. Laterals bluish-black. Chin, lores, and sides of neck very dark green, almost black in certain lights. Throat metallic amethystine-red, with purple reflections, surrounded with a narrow band of dark-green, beneath which, is a wide pure white band crossing all the breast. Abdomen and flanks shining green. Undertail-coverts pale golden-green edged with white. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Unknown.

Type of species in my Collection.

This species comes between *H. clarissae* and *strophianus*.

327. HELIANGELUS STROPHIANUS, Gould, P.Z.S., 1846, p. 45.

*Mellisuga strophianus*, Gray, Gen. Birds, vol. i., p. 112.

*Anactoria strophania*, Reich, Aufz der Colib, 1853, p. 12.

*Gorgeted Sun Angel*, Gould, Mon. Troch., vol. iv., p. 243.

*l'Héliangèle à rectrices d'un bleu-noir*, Muls, Hist. Nat. Ois. Mou., 1876, t. iii., p. 87.

*Habitat*.—Ecuador.

*Male*.—Exactly like *H. henrici*, excepting the tail which is entirely bluish-black.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $\frac{1}{2}$ .

*Female or Young Male*.—Head, lower part of back, and uppertail-coverts bronzy-green, back shining green. Tail, bluish-black with a bronzy-tinge at base of medians. Throat, white, spotted, and surrounded with black, under which is a narrow white band. Breast, abdomen, and flanks, dark green, base of feathers grayish-black. Undertail-coverts white. Wings purple-brown. Bill black.

Total length,  $3\frac{7}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{1}{2}$ .

My specimens of this species were collected in Ecuador, by Buckley.

\*328. HELIANGELUS VIOLICOLLIS, Salv., Ann. and Mag. Nat. Hist., 1891, p. 376.

*Blue-throated Sun Angel.*

*l'Héliangèle a gorge d'un bleu-violet.*

*Habitat*.—Ecuador.

*Male*.—Similar to that of *H. strophianus*, but the upper surface of a darker more rufescent brown, especially in the middle of the back; the abdomen too has a more bronzy hue; the most obvious difference is in the colour of the throat which is glittering violet-blue, without any red or rosy tint.

*Young male*.—Has the feathers of throat black, with white edges; amongst these, the glittering violet feathers of the adult appear.

Type in British Museum.

\*329 HELIANGELUS LATICLAVIUS, Salv., Ann. and Mag. Nat. Hist., 1891, p. 376.

*Ecuadorian Sun Angel.*

*l'Héliangèle de l'Equateur.*

*Habitat*.—Ecuador.

*Male*.—Very similar to that of *H. clarissae*, and with the upper surface and tail coloured in the same manner; on the undersurface the white pectoral band is much wider, more than double the width of that of the allied form; there is no band of glittering green feathers below the white, and the

middle of the abdomen is more distinctly buff; the under tail-coverts are white with wider dusky shaft-stripes.

Type in the British Museum.

330. HELIANGELUS SPENCEI Bourcier, P.Z.S., 1847, p. 46.

*Mellisuga spencei*, Gray, Gen. Birds, vol. i., p. 112.

*Diotima spencei*, Reich, Auzf. der Colib., 1853, p. 12.

*Spence's Sun Angel*, Gould, Mon. Troch., vol. iv., p. 244.

*l'Héliangèle de Spence*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 89.

*Habitat*.—Venezuela.

*Male*.—Spot on forehead metallic silvery-green. Head, lores, and sides of neck very dark green, almost black in certain lights. Upperside shining green, golden on upper tail-coverts. Median rectrices bronzy-green, laterals bronzy-brown, paler on outermost ones. Throat metallic amethystine-red, bluish-purple on chin. A broad pure white band across the breast. Lower part of breast, abdomen, and flanks shining golden-green, rufous in the centre of abdomen. Undertail-coverts golden-green in centre, margined with grayish-white. Wings purplish-brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$  in. Tail,  $1\frac{7}{8}$  in. Culmen,  $\frac{9}{16}$ .

*Female*.—Upperside golden-green. Median rectrices shining bronzy-green, laterals bronzy-brown, darker on internal webs and near the tips. Tips of lateral and outermost ones grayish-white. Lores, throat, and sides of neck very dark green appearing brownish-black in certain lights. Upper part of throat metallic violet-red. Under the black of the throat is a wide band of pure white crossing the breast. Lower part of the breast and flanks golden-green. Abdomen grayish buff. Undertail-coverts pale green in centre, margined with grayish-buff. Wings purplish-brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{9}{16}$ .

I have a young male of this species exactly coloured as the female, but the metallic part of the throat ends in a point, reaching the band across the chest. This band is buff as in *H. amethysticollis*.

This rare species was dedicated by Bourcier to Mr. Spence, the celebrated English Entomologist. I have a fine series of both sexes collected in Merida, Venezuela, by Mr. S. Briceno.

331. HELIANGELUS AMETHYSTICOLLIS, d'Orb and Lafr., Syn. Av., 1838, p. 31.

*Lampornis amethysticollis*, Tsch. Faun. Peru, 1844, p. 246.

*Mellisuga amethysticollis*, Gray, Gen. Birds, vol. i., p. 112.

*Anactoria amethysticollis*, Reich., Aufz. der Colib., 1853, p. 12.

*Amethystine Sun-Angel*, Gould, Mon. Troch., vol. iv., p. 245.

*l'Héliangèle à cou d'améthyste*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 91.

*l'Héliangèle à gorge améthyste*.

*Habitat*.—Peru and Bolivia.

*Male*.—Spot on forehead metallic dark green. Upperside shining green, golden on rump and uppertail-coverts. Median rectrices bronze-green, laterals bronzy-black. Chin bluish-black. Throat metallic amethyst, beneath which is a broad band buff. Lower part of breast and flanks golden-green. Abdomen buff, mottled with green. Undertail-coverts pale bronze in centre, margined with grayish white. Wings purplish-brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen,  $\frac{5}{8}$ .

*Female, or Young Male*.—Less brilliant than the male. Throat deep buff, mottled with brownish black.

This very rare species was discovered in Bolivia, by Mr. Alcide d'Orbigny. I have only one specimen from Peru, and one female or young male, collected in Bolivia, by Buckley.

332. HELIANGELUS MAVORS, Gould, P.Z.S., 1848, p. 12.

*Mellisuga mavors*, Gray, Gen. Birds, vol. iii., p. 5.

*Trochilus mavors*, Reich., Aufz. der Colib., 1853, p. 12.

*Mars Sun Angel*, Gould, Mon. Troch., vol. iv., p. 246.

*l'Héliangèle de Mars*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 92.

*Habitat*.—Venezuela, and Colombia.

*Male*.—Spot on forehead metallic fiery-red. Upperside shining green, very dark on head, appearing black in certain lights. Uppertail-coverts golden-green. Median rectrices shining bronzy-green, laterals bronzy-green, dark on inner webs, outermost ones, bronzy-brown with a buffy-white spot on



inner web of tips. Throat metallic fiery-orange-red, beneath which is a band of buff. Spot behind the eye white. Line under the eye, and lores dark green, almost black. Lower part of breast and flanks green mottled with buff. Abdomen buff. Undertail-coverts bronze, margined with buff. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Coloured like the male, but the throat is metallic orange-red, only a little more than half its length, and margined beneath with a broad band of bronzy-brown, appearing black in certain lights. Under that band, a broad buff band crossing the breast; lateral and outermost rectrices, with tips narrowly margined with buffy-white, rest like the male.

This extremely rare and fine species was discovered in the paramo of Postachuela, Columbia, by M. M. Funck and Schlim. My specimens were collected in the paramo *el Tambor*, near Merida, Venezuela, by Mr. Solomon Briceno.

333. HELIANGELUS ROTSCHILDI, Boucard, Hum. Bird, 1 ♂ 2,  
P. 77.

*Rotschild's Sun Angel.*

*l'Héliangèle de Rothschild.*

*Habitat*.—Colombia.

*Male*.—Upperside, including tail, lustrous purple. Outermost rectrices slightly tipped with buff. Throat luminous coppery-gold, with reddish reflections; sides of throat silky-black. Breast grayish-buff. Centre of abdomen grayish, spotted with dark bronze-green, rest of the abdomen and flanks purple. Undertail-coverts white. A white spot behind the eyes. Tail dark lustrous bluish-purple underside. Wings purplish-brown. Bill and feet black.

Total length,  $3\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{9}{16}$ .

*Female*.—Unknown.

TYPE: Unique in my Collection.

GENUS XCIV. **Panterpe**, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 43.

TYPE.—*P. insignis*, Cabanis and Heine.

Bill straight, slender, about the length of the head. Nostrils exposed. Wings long reaching near the end of tail. Tail

even. Rectrices of same length and pointed. Feet large. Sexes nearly alike.

*Habitat*.—Costa Rica.

334. PANTERPE INSIGNIS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 43.

*Costa Rican Humming-bird*, Gould, Mon. Troch., vol v., p. 336.

*le Panterpe insigne*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 26.

*Habitat*.—Volcano of Irazu, Costa Rica, and Veragua.

*Male*.—Crown of the head brilliant metallic blue. Neck and upper part of back dark brownish-green appearing black in certain lights, lower part of back and rump shining green. Uppertail-coverts brilliant bluish-green. Tail steel-blue. Throat and sides of breast brilliant metallic gold, fiery in the centre. A patch of shining metallic blue feathers in the centre of the breast. Rest of underside brilliant yellowish green. Wings purplish-brown. Maxilla black. Mandible flesh colour for half its length from the base, remainder black.

Total length,  $4\frac{3}{8}$  in, Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Coloured like the male, the bill slightly longer.

I collected a fine series of both sexes of this magnificent species on the volcano of Irazu, Costa Rica, in 1877; but, nevertheless, it is very rare. I know of several other collectors who went there after me, and were glad to come back with one or two specimens. It was discovered by Doctor Hoffmann.

GENUS XCV. **Aglaeactis**, Gould, P.Z.S., 1848, p. 2.

AGLAIACTIS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 69.

TYPE: *T. cupripennis*, Bourcier.

Bill short, straight, about the length of the head. Wings long, primaries falcate. Tail ample, and forked; median rectrices broad, rounded, and shortest; laterals acutely pointed at tips, each one, very slightly and gradually longer. Tarsi partially clothed. Hind toe and nail longer than the middle

toe and nail. Lower part of back and rump brilliantly coloured in males. Sexes similar.

*Habitat*.—Colombia, Ecuador, Peru, and Bolivia.

335. *AGLAEACTIS CUPRIPENNIS*, Bourc. and Muls., Ann. Soc.

Agr. Lyon, 1843, t. vi., p. 46.

*Mellisuga cupripennis*, Gray, Gen. Birds, vol. i., p. 212.

*Helianthea cupripennis*, Reich. Troch. Enum, 1855, p. 6.

*Agelaiactis aequatorialis*, Cab. and Heine, Mus. Hein, 1860, t. iii., p. 70.

*Aglaéactis parvula*, Gould, Int. Troch., 1861, p. 106.

*Shining Sun-beam*, Gould, Mon. Troch., vol. iii., p. 179.

*l'Aglaéacte à rectrices bronzées*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 24.

*Habitat*.—Colombia and Ecuador.

*Male*.—Head, neck, and back, dark bronzy-brown. A narrow band of rufous on neck. Rump and back, viewed from behind, metallic purple-crimson, passing to greenish-gold on uppertail-coverts. Median rectrices rufous at base, passing to bronze, shaft very apparent for two-thirds of its length pale rufous, laterals rufous, margined and tipped with bronze. Shaft of external wing feather rufous and very apparent nearly to the end. Underside rufous, excepting a pale buff spot on the breast. Wings purplish-brown. Maxilla black. Mandible flesh colour at base, rest black.

Total length,  $4\frac{6}{8}$  in. Wing,  $3\frac{1}{2}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—The only difference with the male consists in having the wings shorter, less brilliant on back, rump, and uppertail-coverts, the band of rufous on neck is broader, and the rufous of the underside is paler.

Total length,  $4\frac{6}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{6}{8}$ .

There is no difference whatever in the size or colouring between the specimens from Colombia and Ecuador.

\*336 *AGLAEACTIS CAUMATONOTA*, Gould, P.Z.S., 1848, p. 12.

*Helianthea caumatonota*, Reich. Troch. Enum., 1855, p. 5.

*Aglaeactis olivaceo-cauda*, Lawr., Aun. N.Y. Lyc. Nat. Hist., 1867, p. 470.

*Agelaiactis caumatonota*, Cab. and Heine., Mus. Hein., 1860, t. iii., p. 70.

*Black-throated Sun-beam*, Gould, Mon. Troch. Suppl., 1886, p. 67.

*l'Aglaéacte à dos bronzé*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 26.

*Habitat*.—Peru.

*Male*.—Top of head, back, cheeks, and throat brownish-black. Loral space and spot behind the eyes rufous. Lower part of back and rump, when viewed from behind, dark crimson, shading into green on the uppertail coverts. Upper part of breast, and sides of neck deep buff. Tuft of buff feathers on the breast. Lower part of breast and flanks dark bronzy-green, almost black. Abdomen and undertail-coverts reddish-buff. Greater wing-coverts olive-green, primaries and secondaries purplish-brown. Shaft of outer primaries rufous for three-fourths of its length. Base of central rectrices bright rufous, remaining portion dark olive-green, the lateral feathers have two-thirds of the basal portion of inner webs rufous, the rest is dark olive-green. Bill and feet black.

Total length,  $4\frac{3}{8}$  in. Wings,  $3\frac{1}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Lighter coloured than the male. Head, back, throat, and breast pale brown. Lower part of back less brilliant, rest of plumage like the male.

This rare species is one of my desiderata.

337. *AGLAEACTIS CASTELNAUDI*, Bourc. and Muls., Rev. Zool., 1848, p. 270.

*Trochilus castelnaudi*, Gray, Gen. Birds, 1849, vol. iii., app., p. 30.

*Helianthea castelnaudi*, Reich., Troch., Enum., 1855, p. 6.

*Aglaeactis castelnaudi*, Cab. and Heine., Mus. Hein., 1860, t. iii., p. 69.

*Castelnau's Sun-beam*, Gould, Mon. Troch., vol. iii., p. 180.

*l'Aglaéacte de Castelnau*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 22.

*Habitat*.—Peru.

*Male*.—Upperside dark bronzy-brown. Lower part of back and rump, viewed from behind, luminous metallic

lilaceous-purple. Median rectrices rufous at base and on shaft, rest bronze-green; laterals rufous, margined and tipped with bronze-green. Throat, breast, and flanks dark bronzy-brown. Loral space, spot behind the eye, and centre of throat rufous. A tuft of elongated feathers on the breast pure white. Centre of abdomen buff. Undertail-coverts rufous. Wing-coverts olive-green; primaries and secondaries purplish-brown. Shaft of first primary rufous for two-thirds of its basal length. Maxilla black. Mandible flesh colour at base, rest black.

Total length, 5 in. Wing, 3. Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside not quite so dark as in the male. A band of rufous on neck. Some metallic lilaceous-purple feathers on uppertail-coverts. Median rectrices rufous at base, remainder bronze-green; laterals rufous on inner webs for two-thirds of their length, remainder bronzy-green. Loral space and spot behind the eye rufous. Underside brownish-rufous, with the centre of throat rufous. The tuft of elongated feathers on breast is pale rufous edged with brown. Undertail-coverts pale buff. Underwing-coverts and shaft of first primary deep rufous. Upperwing-coverts bronzy-green, primaries and secondaries purplish-brown. Maxilla black. Mandible flesh colour at base, rest black.

Total length,  $4\frac{6}{8}$  in. Wing, 3. Tail, 2. Culmen,  $\frac{6}{8}$ .

I have two specimens, male and female, of this rare species collected in Peru, by Mr. Whitely.

This species was discovered near Cusco, by Mr. Deville.

It was dedicated to Mr. de Castlenau, by Messrs. Bourcier and Mulsant.

338. *AGLAEACTIS PAMELA*, D'Orb and Lafr, Syn. Av., 1838, vol ii., p. 29.

*Hylocharis pamelæ*, Gray, Gen. Birds, vol. 1, p. 114.

*Helianthea pamelæ*, Reich., Troch., Enum., 1855, p. 6.

*Pamelæ's Sunbeam*, Gould, Mon. Troch., vol. iii., p. 181.

*l'Aglaéacte de Pamela*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 19.

*Habitat*.—Bolivia.

*Male*.—Upperside jet-black, passing to glittering golden-green on lower part of back and uppertail-coverts. Tail

chestnut, edged and tipped with brownish-black. Underside jet-black, with the exception of a tuft of pure white feathers on the breast. Undertail-coverts chestnut. Wings dark bronze-green, excepting the primaries which are purplish-brown. Shaft of first primary, from base to half its length, dark chestnut. Bill black.

Total length, 4in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Exactly like the male, but not so bright, the black of upper and underside inclining to brownish-black, the luminous colour of lower part of back and uppertail-coverts is not quite so bright as in the male, and not so green. There is a bronzy tinge on each side of shaft of the median rectrices.

This handsome and rare species was discovered in Bolivia, by Mr. Alcide d'Orbigny.

I have a fine series collected in Bolivia, by Buckley in 1874.

GENUS XCVI. **Lafresnaya**, Bon., Compt. Rend., 1850,  
p. 380.

CALOTHORAX, Gray, Gen. Birds, 1848, vol. i., p. 110.

ENTIMA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 51.

EUCLOSIA, Muls. and Verr., Class. Trochil., 1865, p. 63.

TYPE: *T. flavicaudata*, Fraser.

Bill narrow, long, curved, much longer than the head. Wings long, pointed, reaching the end of tail, primaries curving inwardly, outer web on the first hardly perceptible, inner webs very narrow. Tail slightly forked in the males. Rectrices pointed, outermost ones longer than the rest. Undertail-coverts reaching two thirds the length of rectrices. Feet moderate. Tarsi clothed. Sexes different in plumage.

*Habitat*.—Venezuela, Colombia, and Ecuador.

339. LAFRESNAYA FLAVICAUDATA, Fraser, P.Z.S., 1840,  
p. 18.

*Trochilus lafresnayi*, Boissonneau, Rev. Zool., 1840, p. 8.

*Calothorax lafresnayi*, Gray, Gen. Birds, vol. i., p. 110.

*Entima lafresnayi*, Cab. and Hein., Mus. Hein., 1860,  
t. iii., p. 51.

*Euclosia lafresnaya*, Muls., Hist. Nat. Ois. Mou., 1876,  
vol. ii., p. 187.



*Buff-tailed Velvet-breast*, Gould, Mon. Troch., vol. ii., p. 85.

*l'Euclosie de Lafresnaye*, Muls., Hist. Nat. Ois. Mou., 1876. vol. ii., p. 188.

*Habitat*.—Colombia.

*Male*.—Upperside dark shining green. Median rectrices shining bronze-green. Laterals pale buff margined and tipped with bronzy-green. Throat, breast, and flanks metallic grass-green. Abdomen velvety-black. Undertail-coverts bronze-green with the base of feathers pale buff. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen, 1.

*Female*.—Upperside golden-green. Median rectrices golden-bronze, the two next pale buff, tipped with bronze, the two outermost ones pale buff tipped with purplish-brown, all the rectrices of the same length. Underside buff, washed with green feathers. Throat minutely spotted with green. Abdomen pale buff. Undertail coverts buff, with green tips on the longest feathers. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen, 1.

*Young Male*.—Like the female, but the underside is washed with bright green feathers.

This species was probably discovered by Boissonneau, in Colombia, and was dedicated by him to Mr. Lafresnaye, who had a fine Ornithological collection. Although the name of *T. lafresnayi*, Boissonneau, ought to have the priority on *L. fluvicaudata*, Fraser. I have adopted the generic name of *Lafresnaya*, of Bonaparte, and the specific name of Fraser, considering this generic name more honorific for the late Baron de Lafresnaye.

It is abundant in Colombia.

340. LAFRESNAYA CINEREORUFA, Boucard, H. Bird, 1891, vol. i., p. 25.

*Gray-rufous breasted Lafresnaye*.

*le Lafresnaye a paitrine gris-roussâtre*.

*Habitat*.—Colombia.

*Female* ?—Head dark golden green. Upperside ashy-gray passing to rufous on rump, each feather edged with black or rufous. Tail rufous for three-thirds of its length, rest dark

gray, with bronzy tips on medians and purplish-black tips on laterals. Underside rufous with sides of breast and abdomen grayish-white. Undertail-coverts rufous with pale golden-green in centre. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen, 1.

Type unique in my Collection.

Count Berlepsch thinks that it is only an accidental variety of *L. flavicaudata*.

341. LAFRESNAYA GAYI, Bourc. and Muls., Ann. Soc. Agri. Lyon., 1846, p. 325.

*Trochilus saulæ*, Bourc. and Delatt., Rev. Zool., 1846, p. 309.

*Calothorax gayi*, Gray, Gen. Birds, vol. i., p. 110.

*Lafresnaya saulæ*, Bon., Consp. Gen. Av., vol. i., p. 68.

*Entima gayi*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 51.

*Euclosia gayi*, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 190.

*White-tailed Velvet-breast*, Gould, Mon. Troch., vol. ii., p. 86.

*l Enclosie de Gay*, Muls. Hist. Nat. Ois. Mou., 1876, vol. ii., p. 190.

*Habitat*.—Venezuela and Ecuador.

*Male*.—Upperside shining dark green, sometimes with a golden tinge. Median rectrices shining bronze-green. Laterals white with bronze tips, outermost ones white, margined on upper half of external web, and tipped with purplish-brown, sometimes all the tips of laterals are purplish-brown. Throat, breast, and flanks metallic grass-green. Abdomen velvety-black. Undertail-coverts shining green, with the base of feathers white. Wings purplish-brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

*Female*.—Exactly like the male, excepting the tips of lateral and outermost rectrices which are broader, and the underside which is white, washed with green.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

This species is rare. It was dedicated by Messrs. Bourcier and Mulsant, to Mr. Claude Gay, Naturalist, who explored Chili, during fifteen years.

GENUS XCVII. **Erebenna**, Muls. and Verr., Class. Troch., 1865, p. 66.

TYPE: *T. derbyi*, Delattre and Bourcier.

Bill straight, longer than the head, rather stout for all its length. Nostrils exposed. Wings long, narrow, and pointed, reaching the end of tail. Tail forked and acutely pointed. Tarsi clothed. Sexes dissimilar.

*Habitat*.—Colombia and Ecuador.

342. EREBENNA DERBIANA, Delatt. and Bourc., Rev. Zool., 1846, p. 306.

*Eriopus derbyi*, Gould, P.Z.S., 1847, p. 17.

*Threpteria derbyi*, Reich., Aufz. der Col., 1859, p. 3.

*Eriocnemis derbyanus*, Bon., Rev. and Mag. Zool., 1854, p. 252.

*Derby's Puff-leg*, Gould, Mon. Troch., vol. iv., p. 279.

*l'Eriocnemis de Derby*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 60.

*Habitat*.—Colombia and Ecuador.

*Male*.—Upperside shining golden-green, bronzy on neck and uppertail-coverts. Uppertail-coverts luminous metallic gold. Tail brownish-black, with a bronze tinge on base of feathers. Underside brilliant golden-green. Undertail-coverts luminous golden-green. Tarsal tufts black. Wings purplish-brown. Feet and bill black.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Forehead shining greenish-blue. Upperside shining green, bronzy on neck and rump. Underside metallic golden-green, showing the white base of feathers on the throat and breast, and more so, on centre of abdomen. Tarsal tufts white. Rest as male.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

This excessively rare and fine species was discovered on the volcano of Puracé, near Popayan, by Delattre. It was dedicated by him and Bourcier, to Lord Edward, thirteenth Earl of Derby, who during his lifetime, was one of the most liberal Patrons of natural sciences.

My female specimen of this species was collected at Pasto, by the celebrated alpinist, Mr. E. Whymper.

GENUS XCVIII. **Engyete**, Reich., Syst. Av., 1849, p. xi.

TYPE: *E. alinae*, Bonrcier.

Bill straight, slender, longer than the head, nostrils exposed. A bright metallic spot on forehead. Wings long, pointed, reaching the end of tail. Tail forked, rectrices narrow, pointed at tips, brilliantly coloured. Median shorter, laterals and outermost ones gradually longer. Upper surface similarly coloured. A large white patch on breast. Tarsi clothed. Tuft on anal region black. Sexes nearly similar.

*Habitat*.—Colombia, Ecuador, and Peru.

343. ENGYETE ALINAE, Bourc., Ann. Soc. Agr. Lyon, 1842,  
p. 343.

*Hylocharis alinae*, Gray, Gen. Birds, vol. i., p. 114.

*Eriopus alinae*, Bon. Consp. Gen. Av., 1850, vol. i., p. 80.

*Engyete alinae*, Reich., Aufz. der Col., p. ix.

*Metallic Puff-leg*, Gould, Mon. Troch., vol. iv., p. 280.

*l'Eriocnemis d'Aline*, Muls., Hist. Nat. Ois. Mou., 1876,  
t. iii., p. 31.

*Habitat*.—Colombia, and Ecuador.

*Male*.—Upperside shining grass-green. Forehead luminous green. Underside, excepting a white spot on centre of breast, brilliant metallic green. Tarsal tufts white. Wings purplish brown. Bill black.

Total length,  $3\frac{3}{8}$  in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Slightly tinged with more white on breast, and throat.

I have two specimens marked, Delattre, Panama, with the forehead patch and all the underside of the most brilliant golden-green, quite different from the Colombian and Ecuadorian specimens; but I consider them as only a variety of colouration. I bought them at Bourcier's sale, and one of them is probably the type of the species.

This pretty species was dedicated by Bourcier to his wife.

My specimens from Ecuador, were collected by Buckley.

\*344. ENGYETE DYBOSKII, Tacz., P.Z.S., 1882, p. 39.

*Eriocnemis dyboskii*, Tacz., P.Z.S., 1882, p. 39.

*Dyboski's Puff-leg*, Gould, Mon. Troch., Suppl., 1886, p. 68.

*l'Eriocnemis de Dybowski.*

*Habitat.*—Peru.

*Male.*—Upperside coppery-golden with bluish reflections in certain lights. Tail deeply forked bronzy-green, more brilliant on median rectrices. Underside brilliant metallic green, especially on the abdomen with bluish reflections more accentuated than on the upperside. Centre of breast white at base, then green showing a small space white. Undertail-coverts shining green with the base of feathers buffy-white. Thigh tufts pure white. Wing coverts golden-green. Wing purplish-brown. Maxilla black, Mandible flesh colour with black tip.

Total length, 106 mill. Wing, 52. Tail 31. Culmen, 22.

*Female.*—Similar to the male in colouration, the white spot on breast more apparent, washed with small green spots, the white base of the throat feathers more apparent, the feathers of the abdomen edged with white.

This rare species was dedicated by Mr. Taczanowski, to Doctor Dybowski, the well-known Siberian explorer.

Types in Warsaw Museum.

This species was discovered in Peru, by the well-known collector Mr. Stolzmann. By the description, it looks exactly the same as my Ecuadorian specimens of *E. alinae*.

GENUS XCIX. **Spathura**, Gould, Mon. Troch, pl. 164, June, 1849.

OCREATUS, Gould, P.Z.S., 1846, p. 86.

STEGANURUS, Reich., Syst. Av. Nat., December 1849, pl. 40.

URALIA, Muls. and Verr., Class Troch., 1865, p. 81.

TYPE:—*O. underwoodi*, Lesson.

Bill straight, about the length of the head. Nostrils exposed. Wings moderately long surpassing slightly the median rectrices. Tail deeply forked. Median rectrices smaller, the next three gradually longer and pointed, outermost

one twice as long as the longest lateral rectrices, having the shaft bare of webs for a portion of its length, and terminating in a spatula. Tarsi hidden in a tuft of downy feathers. Hind toe and nail shorter than the middle toe and nail. Sexes unlike.

*Habitat*.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

345. STEGANURA UNDERWOODI, Less., Troch, 1831, p. 105.

*Ornismya kieneri*, Less., Troch, 1831, p. 165.

*Mellisuga underwoodi*, Gray, Gen. Birds, vol. i., p. 113.

*Steganurus spatuligerus*, Reich., Aufz., der Colib, 1853, p. 8.

*Spathura underwoodi*, Gould, Mon. Troch., vol. iii., p. 162.

*White-footed Racket-tail*, Gould, Mon. Troch, vol. iii., p. 162.

*La Sténagure d'Underwood*, Muls., Hist. Nat. Ois. Mou., 1877, t. iv., p. 255.

*la Spathure d'Underwood*.

*Habitat*.—Colombia and Venezuela.

*Male*.—Upperside shining green. Median rectrices bronze-green, laterals bronze-green on outer web, rest bluish-black, outermost ones brownish-black; shafts grayish-brown, very apparent up to the spatula, which is bluish-black with a bronzy dark bluish-green spot at tip. Chin jet black. Throat and breast luminous metallic grass-green. Rest of underside bronzy-green. Tarsal tufts white. Bill black. Feet flesh colour.

Total length,  $5\frac{1}{2}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $3\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside shining green, bronzy on head. Median rectrices shining bronze-green, laterals bronze-green on outer webs, bluish-black on inner, with white tips, outermost ones bluish-black margined with brown on outer and inner webs, and with white tips. Underside white spotted with green. Undertail-coverts rufous.

Total length, 3 in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $\frac{1}{2}$ .

*Young Male*.—Exactly coloured like the female, with more green spots on the underside and outermost rectrices, with spatula of the same length as adult males. The spatula is longer and narrower than in the adults, and sometimes margined with white at tips.



The length of the tail varies slightly according to age.

This species is very abundant in Colombia, but rare in Venezuela.

It was probably discovered by Mr. Stokes, who sent a drawing of this bird to Lesson, by Mr. Underwood, to whom he dedicated this beautiful and remarkable species.

346. SPATHURA MELANANTHERA, Jard., Contr. Ornith., 1851,  
p. 111.

*Discura melananthera*, Bon., Consp. Gen. Av., 1850, vol. i.,  
p. 70.

*Ecuadorian Racket-tail*, Gould, Mon. Troch., vol. iii., p. 163.

*Oblong Racket-tail*.

*La Stéganure à raquette oblongue*, Muls., Hist. Nat. Ois.  
Mou., 1877, t. iii., p. 258.

*la Spathure à raquette oblongue*.

*Habitat*.—Ecuador.

*Male*.—In colouration, this species is nearly identical with the preceding one, but can be easily distinguished by not having the chin jet black, as mentioned by Elliot, the two being exactly similar in that respect, but by the size of the tail which is much shorter, and also by the smaller size of the spatula, which is also more rounded than in *S. underwoodi*.

In my specimens which were collected in Ecuador, by Buckley, the colour of the underside is more golden, but this don't amount to much, as I have also one specimen from Merida, Veuzuela of the same colour, although undoubtedly being, *S. Underwoodi*. The colour of the upperside is also slightly golden-green.

Total length,  $4\frac{5}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $3\frac{1}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Also like that of *S. underwoodi*, but with the underside white, excepting the flanks, which are sparingly spotted with green.

Total length, 3 in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{7}{16}$ . Culmen,  $\frac{1}{2}$ .

It is much rarer than the preceding species.

- \*347. SPATHURA SOLSTITIALIS, Gould, Ann. Mag. Nat. Hist., 1871, vol. viii., p. 62.

*Ecuador Racket-tail*, Gould, Mon. Troch., Suppl. p. 52.

*La Stéganure du solstice*, Muls., Hist. Nat. Ois. Mou., 1877, t. iii., p. 260.

*la Spathure du solstice.*

*Habitat.*—Ecuador.

*Male.*—Uppersurface, abdomen, flanks, and undertail coverts dark grass-green. Throat and breast luminous grass green. Wings purplish brown. Tarsal tufts very deep buff. Tail dark brown, outer webs of all but the outermost rectrices washed with green. Spatules black. Bill black.

Total length,  $5\frac{1}{4}$  in. Wing,  $1\frac{7}{8}$ . Tail, 3. Culmen,  $\frac{5}{8}$ .

*Female.*—Upperparts bronzy-green. Entire underparts white spotted with green. Undertail coverts buff. Middle rectrices bronzy-green, outermost one, on either side, brown, tipped with white, remainder brown on inner web, bronzy-green on outer. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{3}{4}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

This is a very rare species. The types of Gould are in the British Museum.

- \*348. SPATHURA ADDAE, Bourc., Rev. Zool., 1846, p. 312.

*Ocreatus rufocaligatus*, Gould, P.Z.S., 1846, p. 86.

*Mellisuga rufocaligata*, Gray, Gen. Birds, vol. i., p. 113.

*Spathura addae*, Bon. Consp. Gen. Av., 1850, vol. i., p. 80.

*Red booted Racket-tail*, Gould, Mon. Troch., vol. iii., p. 165.

*La Stéganure d'Adda*, Muls., His. Nat. Ois. Mou., 1877, t. iii., p. 264.

*La Spathure d'Adda.*

*Habitat.*—Bolivia.

*Male.*—Throat and breast brilliant green'; rest of body and middle rectrices bronze-green. Undertail-coverts bronze-green margined with buff. Tarsal tufts rufous. Tail brown; spatules black. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{9}{16}$ .

*Female.*—Upper parts and median rectrices bronze-green. Undersurface white spotted with green. Tarsal tufts and

undertail-coverts rufous. Outermost rectrices brown tipped with white, rest brown on inner web, green on outer one. Bill black.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

"Elliot's Syn. of H. Birds, p. 143."

Type of male in Elliot's Collection, now in the American Museum of Natural History of New York. This rare species is represented in the collection of the British Museum by seven males, and three females. It is closely allied to *St. solstitialis*.

349. SPATHURA ANNAE, Berl. and Stolz. Ibis, 1894, p. 398.

*Steganura peruana*, Tacz., P.Z.S., 1874, p. 541.

*Anna's Racket Tail*.

*la Spathure d'Anna*.

*Habitat*.—Chanchamayo, Peru.

*Male*.—*S. addae* maxime affinis, differt basibus plumarum corporis inferioris fuscis, minime albis et rectricibus externis cruciatis.

Closely allied to *S. addae*.

Types in Museum Branicki, Varsovia, and in Museum Berlepsch.

\*350. SPATHURA PERUANA, Gould, Mon. Troch., vol. iii., p. 164.

*Peruvian Racket-tail*, Gould, Mon. Troch., vol. iii., p. 164.

*La Stéganure du Pérou*, Muls., Hist. Nat. Ois. Mou., 1877, t. iii., p. 262.

*La Spathure du Pérou*.

*Habitat*.—Peru.

*Male*.—Throat and breast metallic grass-green; rest of plumage of body bronzy-green. Wings and tail brown; the outer webs of all the lateral rectrices bronzy-green, outer web of outermosts steel-blue. Bill black. Tarsal tufts buff.

Total length, 5 in. Wing,  $1\frac{3}{4}$ . Tail,  $3\frac{1}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upper surface and median rectrices bronzy-green. Under surface white spangled with green. Tarsal tufts and undertail coverts buff. Outermost rectrices brown

tipped with white; rest brown on inner web, green on outer one. Bill black. Wings brown.

Total length,  $3\frac{1}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

The types of this rare species are in the British Museum, "Ex Gould Collection." They have two males, two females, and one junior. It was discovered in Peru, by Mr. Matthews, in 1831.

\*351 SPATHURA CISSIURA, Gould, P.Z.S., 1853, p. 109.

*Steganura cissiura*, Gould, P.Z.S., 1853, p. 109.

*Uralia cissiura*, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 265.

*Scissor-tailed Racket-tail*, Gould, Mon. Troch., vol. iii., p. 166.

*l'Uralie à queue fendue*, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 266.

*La Spathure à queue fourchue*.

*Habitat*.—Peru.

*Male*.—General plumage bronzy-green; wings purplish-brown; central rectrices green, lateral steel-blue; under surface green, paler on the throat; thighs thickly plumed and of a reddish buff.

Total length,  $4\frac{1}{4}$  in. Wing,  $1\frac{5}{8}$ . Tail,  $2\frac{3}{8}$ . Bill,  $\frac{5}{8}$ .

"Gould, loc. c."

I have seen the types of this species in the British Museum, and was unable to see in what they differed from *S. peruana*.

GENUS C. **Threptia**, Reich, Aufz. der Colib., 1854, p. 9.

TYPE: *T. aureliae*, Bourcier and Mulsant.

Bill straight, narrow, and acutely pointed. Nostrils exposed. Wings long, reaching the end of tail. Tail even, slightly rounded. Rectrices of uniform size, excepting the medians which are shorter. Tarsi clothed. Sexes similar.

*Habitat*.—Columbia, Ecuador, and Bolivia.

352. THREPTRIA AURELIAE, Bourc. and Muls., Ann., Soc., Agr., Lyon, 1846, p. 315.

*Hylocharis aureliae*, Gray, Gen. Birds, vol. i., p. 114.

*Eriopus aureliae*, Bon., Consp., Gen. Av., 1850, vol. i, p. 80.

*Eriocnemis aureliae*, Reich., Aufz. der Col., 1853, p. 9.

*Aurelia's Puff-leg*, Gould, Mon. Troch., vol. iv., p. 283.

*l'Eriocnémis d'Aurélié*, Muls. Hist., Nat. Ois. Mou., 1876, t. iii., p. 52.

*Habitat*.—Columbia.

*Male*.—Forehead and back shining green. Head, lower part of back, and uppertail-coverts coppery-bronze. Tail bluish-black, underside metallic bronzy-green. Feathers on the vent fringed with white or pale gray. Tarsal tufts intermixed with pale chestnut and white. Undertail-coverts grass-green. Wings purplish-brown. Bill black.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Exactly like the male with more white on vent, and the undertail-coverts margined with buff. This species is very abundant in Columbia.

It was dedicated by Messrs. Mulsant and Bourcier, to Miss Aurélic Favre, who married Mr. Jacques Louis Henon, a celebrated Naturalist of Lyon.

353. THREPTRIA RUSSATA, Gould, P.Z.S., 1871, p. 505.

*Buff Puff-leg*.

*l'Eriocnémis á tarsi rous*.

*Habitat*.—Ecuador.

This species is closely allied to *T. aurcliae*, but larger. My specimen from Ecuador is more bronzy on back, less shiny on underside with tarsal tufts paler chestnut, and undertail coverts bronze-green.

It may be a female or a male not quite adult.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

354. THREPTRIA ASSIMILIS, Elliot, Bull. Soc. Zool. France, 1876, p. 227.

*Brown-booted Puff-leg*, 1886, p. 70.

*l'Eriocnemis de Bolivie*.

*Habitat*.—Bolivia.

*Male*.—Head, neck, and uppertail-coverts coppery-bronze. Back and wing-coverts shining green. Wings purple-brown. Underside shining green with a coppery lustre. Abdomen buff. Undertail-coverts shining green, margined with buff. Tarsal tufts pale brown. Tail bronze at the base, passing to black at the tips. Bill black. Feet light brown.

Total length,  $3\frac{3}{4}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{3}{4}$ .

*Female*.—Slightly smaller and duller in colouration. Type in Elliot's Museum, now the property of the New York American Museum of Natural History.

My specimens of this species were collected in Bolivia, 1876, by Buckley; and probably Elliot's type, was also from the same collector.

355. THREPTRIA LUGENS, Gould, Contr. Ornith., 1851, p. 140.

*Hoary Puff-legg*, Gould, Mon. Troch., vol. iv., p. 282.

*l'Eriocnémis demi deuil*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 54.

*Habitat*.—Ecuador.

*Male*.—Upperside bronzy-green inclining to coppery-bronze on the head and uppertail-coverts. Tail bluish-black. Underside dark laden-gray, washed with dark green on sides of abdomen and flanks, the feathers of the chin and throat are edged with white. Undertail-coverts dark greenish-bronze edged with gray. Tarsal tufts pure white. Wings purplish. Bill black. Feet pale brown, probably flesh-colour in life.

Total length,  $4\frac{2}{8}$ . Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

It is a very rare species in the Collections.

356. THREPTRIA SQUAMATA, Gould, P.Z.S., 1869, p. 311.

*Scaly Puff-leg*, Gould, Mon. Troch., vol. iv., p. 281.

*l'Eriocnémis à gorge écaillée*, Muls., His. Nat. Ois. Mou., 1876, t. iii., p. 55.

*Habitat*.—Ecuador.

*Male*.—Precisely the same as *T. lugens*, except the tarsal tufts, of which the hind portion is buff. I doubt very much that it is a distinct species.



GENUS CI. **Eriocnemis**, Reich., Syst. Av., 1849, pl. xl.

*Eriopus*, Gould, P.Z.S., 1847, p. 16. Already employed for Lepidoptera.

*Threptria*, Reich., Syst. Av., 1854, pl. xi.

*Phemonoe*, Reich., Syst. Av., 1854, pl. ix.

*Nania*, Muls., Cat. Ois. Mou., 1875, p. 21.

*Erionā*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 28.

TYPE: *O. vestita*, Longuemare.

Bill straight, slender, longer than the head. Nostrils exposed. Wings long, pointed, reaching nearly the end of tail. Tail forked. Median rectrices short and wide, laterals graduating in length up to the outermost ones, which are the longest. Tarsi thickly clothed. Feet small.

*Habitat*.—Venezuela, Colombia, Ecuador.

357. **ERIOCNEMIS NIGRIVESTIS**, Bourc. and Muls. Ann. Soc. Agr. Lyon, 1852, p. 144.

*Eriocnemis nigriventris*, Reich., Aufz. der Colib, 1853, p. 9.

*Black-breasted Puff-legg*, Gould, Mon. Troch., vol. iv., p. 276.

*l'Eriocnémis à robe noire*, Mul., Hist. Nat. Ois. Mou., 1876, t. iii., p. 39.

*Habitat*.—Ecuador.

*Male*.—Head black with bronze tinge. Upperside black with greenish reflections in certain lights, passing to dark green on rump. Uppertail-coverts dark indigo-blue. Tail bluish-black. Centre of throat metallic blue. Rest of underside black with a greenish tinge, more especially so, on abdomen, and flanks. Undertail-coverts shining indigo-blue. Tarsal tufts white. Wings purplish-black. Bill and feet black.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside bronzy-green, becoming pure green on rump, and brilliant green on the uppertail-coverts. Throat blue. Breast golden-bronze. Rest of underside shining green. Undertail-coverts violet-blue.

It is a very rare species. My specimens were collected in Ecuador, by Buckley.

- \*358. ERIOCNEMIS VENTRALIS, Salv. Ann. and Mag. Nat. Hist.  
1891, p. 378.

*Amethyst vented Puff-leg.*

*l'Eriocnémis à ventre améthyste.*

*Habitat.*—Colombia.

*Male.*—Upper surface shining grass-green, becoming bronzy-black on the hind neck and crown, and glittering olive-green on the rump, and uppertail-coverts; under surface with the throat bronzy-black, a glittering blue gular patch; breast glittering green shading into a glittering amethyst on the abdomen, undertail-coverts glittering purplish-blue; tail steel-blue, tibial tufts pure white; bill black.

Total length, 3.9 in. Wing, 2.25. Tail, 1.65. Bill, 0.85.

TYPE: Ex. Coll. Salvin and Goodman, now in the British Museum.

359. ERIOCNEMIS VESTITA, Longuem, Rev. Zool., 1838, p. 314.

*Trochilus uropygialis*, Fras. P.Z.S., 1840, p. 15.

*Hylocharis vestita*, Gray, Gen. Birds, vol. i, p. 114.

*Ornismya glomata*, Less, Echo du Monde Savant, 1843.

*Eriopus vestita*, Bon. Consp., Gen. Av., 1850, vol. i., p. 80.

*Mellisuga ridolfi*, Benv. Ann. R. Mus. Flor., 1865, p. 205.

*Eriocnemis smaragdinipectus*, Gould, Ann. Mag., Nat. Hist., 1868, p. 322.

*Glowing Puff-leg*, Gould, Mon. Troch., vol. iv., p. 275.

*L'Eriocnémis à plaque jugulaire d'un bleu-violet*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 33.

*Habitat.*—Venezuela, Colombia, and Ecuador.

*Male.*—Upperside dark shining green. Rump and uppertail-coverts most brilliant metallic golden-green. Tail bluish-black. Centre of throat metallic blue. Rest of throat and breast dark shining green, appearing black in certain lights. Lower part of breast, abdomen, and flanks glittering metallic golden-green. Tarsal tufts pure white. Undertail-coverts shining violet-blue. Wings purplish-brown. Feet and bill black.

Total length, 4.2 in. Wing, 2.3. Tail, 1.7. Culmen,  $\frac{6}{8}$ .

*Female.*—Upperside shining golden-green, very brilliant on rump and uppertail-coverts. Median rectrices bronze-green

passing to bluish-black at tips. Tail bluish-black. Centre of throat and undertail-coverts shining blue, lighter than in the male. Rest of underside shining golden-green, showing rufous base of feathers on throat and breast, and gray on abdomen.

Total length, 4in. Wing, 2. Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

This beautiful species is very abundant in Columbia, and Ecuador, much rarer in Venezuela.

I have one male specimen from Columbia with the throat brilliant metallic pale blue, and under it, a wide band of dark rufous; the breast brilliant dark green, rest of plumage as the other specimens. I think that it is only an accidental variety of colouration.

I have not been able to see any difference between *E. vestita*, and *E. smaragdinipectus*. My adult male specimens, collected by Buckley, in Ecuador, are precisely like those from Colombia, and Venezuela, others not so adult, are brilliant green, up to the blue spot of throat.

\*360. ERIOCNEMIS AUREA, Meyer, Auk., 1890, vol. vii., p. 315.

*Golden Puff-leg.*

*l'Eriocnémis doré.*

*Habitat.*—Colombia.

Differs from *E. cupreiventris* by the golden-bronze colour all over, and in part of a most lively tint, even on the shorter tail and wing coverts. The throat and upper breast are of a lighter green than in *E. cupreiventris*, and in certain lights washed with bronze too, and each feather has a concealed white cross band as in *E. dybowski*. Further, the long upper tail coverts are not greenish blue, but green, and the undertail-coverts are not violet, but cobalt-blue, only in certain lights, they are hyacinth-blue, some margined with green. The colour of the wings as well as that of the tail is not as lively as in *E. cupreiventris*, and finally the white plumes on the thighs are much shorter, and not so abundant. It cannot be taken for a young *cupreiventris*, being much more brightly coloured on the whole body than the adult of this species. "Meyer loc. cit."

361. ERIOCNEMIS CHRYSORAMA, Elliot, Ann. and Mag. Nat. Hist., 1874, p. 375.

*Blue vented Puff-leg*, Gould, Mon. Troch., Suppl., 1886, p. 69.

*l'Eriocnémis à gorge dorée*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 44.

*Habitat*.—Colombia, Ecuador?

*Adult*.—Upper and lower surface metallic fiery-copper colour. Chin and throat metallic yellowish-green, golden-yellow in some lights. Uppertail-coverts luminous yellowish-green. Undertail-coverts white on their basal half, rest blue. Wings purplish-brown. Tail much forked, steel-black. Tarsal tufts pure white. Bill black.

Total length,  $4\frac{1}{4}$  in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $\frac{7}{8}$ .

“Elliott's Syn. of H. Birds, p. 193.”

Type of male in Elliot's Museum, now in the American Museum of Natural History of New York.

*Female*.—Upperside coppery-golden. Uppertail-coverts most brilliant coppery-gold. Median rectrices bronzy-green for two-thirds of their length, rest steel-blue. Lateral, and outermost ones steel-blue. Wings purplish-brown. Throat and undertail-coverts pale metallic-blue. Rest of underside coppery-gold, lighter on breast. Tarsal tufts pure white. Bill and feet black.

Total length, 4 in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

Type of female, unique in my Collection.

362. ERIOCNEMIS GODINI, Bourc., Compt. Rend., 1851, t. xxxii., p. 186.

*Eriocnemis smaragdinipectus*, Gould, Ann. Mag., Nat. Hist., 1868, p. 322.

*Godin's Puff-leg*, Gould, Mon. Troch., vol. iv., p. 277.

*L'Eriocnémis de Godin*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 36.

*Habitat*.—Ecuador.

*Male*.—Upperside shining bronzy-green, becoming glittering green on the rump, and uppertail-coverts. Underside glittering golden-green, more coppery on the abdomen, a glittering blue gular spot, gradually shading into the glittering

green of the throat. Tibial tufts pure white. Under tail-coverts glittering blue. Tail steel-blue.

*Female*.—Like that of *E. vestita*.

- \*363. ERIOCNEMIS EVELINAE, Ernst. and Hart., Novit. Zool., 1894, vol. i., p. 17.

*Eveline's Puff-Leg.*

*l'Eriocnémis d'Eveline*

*Habitat*.—Rio Pastassa, Ecuador.

Similis femina *E. Godini*, sed rostro brevior, mandibula ad basin carnea, caudae tectricibus splendidioribus, pectore obscuriore.

Total length nearly 4in. Wing, 2·35. Lateral rectrices, 1·6. Central, 1·22. Bill 1·59.

Dedicated to the sister of the Hon. Lionel Walter de Rothschild.

Type unique in Tring Museum.

I have not seen this species.

364. ERIOCNEMIS CUPREIVENTRIS, Fras, P.Z.S., 1848, p. 15.

*Ornysmia vestita*, female, Longue, Rev. Zool., 1838, p. 314.

*Eriopus simplex*, Gould, P.Z.S., 1849, p. 96.

*Hylocharis cupreiventris*, Gray, Gen. Birds, vol. i., p. 114.

*Phemonoe, cupreiventris*, Reich., Aufz. der Colib, 1853, p. 9.

*Coppery-bellied Puff-leg*, Gould, Mon. Troch., vol. iv. p. 270.

*Olive Coloured Puff-leg*, Gould, Mon. Troch., vol. iv., p. 271.

*l'Eriocnémis à ventre cuivreux*, Muls., His. Nat. Ois. Mou., 1876, t. iii., p. 46.

*Habitat*.—Colombia and Venezuela.

*Male*.—Upperside bronzy-green, passing into shining green on uppertail-coverts. Tail bluish-black. Throat and breast shining green, passing to golden on flanks. Abdomen brilliant metallic coppery-red. Undertail-coverts shining blue with purplish reflections in some specimens. Tarsal tufts white. Wings purplish-brown, with a bronze tinge on secondaries. Bill and feet black.

Total length, 4½in. Wing, 2¾. Tail, 1⅞. Culmen, ⅝.

*Female*.—Exactly the same, but slightly less brilliant.

It is a very common species in Colombia, but rare in Venezuela. From the last country, I have received several specimens from Merida.

365. *ERIOCNEMIS ALBOGULARIS*, Boucard, Hum. Bird, 1892, p. 78.

*White throated Puff-leg.*

*l'Eriocnémis à gorge blanche.*

*Male*.—Upperside shining green, most brilliant on upper-tail-coverts. Tail steel-blue. Throat pure snow-white. Breast, upper part of abdomen, and flanks shining green. Lower part of abdomen metallic golden. Tarsal tufts pure white. Undertail-coverts shining blue. Wings purplish-brown. Bill and feet black.

Total length,  $3\frac{1}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

This species is allied to *E. cupreiventris*, but easily distinguishable by the colour of its throat. Possibly it may turn out to be a case of semi-albinism.

Type unique in my Collection.

366. *ERIOCNEMIS DYSELIUS*, Elliot, Ibis., 1873, p. 294.

*Eriocnemis dyselia*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii. p. 50.

*Black vented Puff-leg*, Gould, Mon. Troch. Suppl., 1866, p. 69.

*l'Eriocnémis à sous caudales noires*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii, p. 51.

*l'Eriocnemis noir.*

*Habitat*.—Colombia (not Ecuador).

*Male*.—Upperside black with a purple gloss. Tail bluish-black with purplish reflections. Wings glossy black. Underside black, with a purple gloss on throat. Tarsal tufts pure white. Bill and feet black.

Total length, 4 in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Unknown.

TYPE: (Elliott's Collection) now in New York Museum.

I have only one very fine male specimen of this species, which is probably a melanism of *E. cupreiventris*.



\*367. *ERIOCNEMIS INCULTUS*, Elliot, Auk, 1889, p.p. 209-210.

*Dark violet Puff-leg.*

*l'Eriocnémis violet-obscur.*

*Habitat.*—Bogota. (?)

Crown of head, upper parts of body, and uppertail-coverts bluish-black; the feathers on rump and uppertail-coverts margined with rufous. Throat and centre of breast dull lead-colour, feathers of the throat edged with white. Wings deep purple. Sides of breast bluish-black. Flanks black with a deep brownish reflection. Abdomen white spotted with brown. Tail steel-blue, nearly square at tip. Feathers of undertail-coverts gray in centre, glossed with green, and edged with white. Thigh tufts white. Bill black, base of mandible flesh-colour. Feet black.

Length of Wing,  $2\frac{2}{12}$  in. Tail,  $1\frac{5}{12}$ . Culmen,  $\frac{9}{12}$ .

(Elliot's loc. cit.).

The specimen from which the above description was taken is unique in the American Museum of Natural History. It is not in fully adult plumage. It comes close to *E. dyselius*, which species, is from Colombia, not Ecuador, as stated by Mr. Elliot.

In my opinion it is the same species, and probably also a melanism of *E. cupreiventris*.

368. *ERIOCNEMIS SIMPLEX*, Gould, P.Z.S., 1849, p. 96.

*Dark Puff-leg.*

*l'Eriocnémis obscur.*

*Habitat.*—Colombia.

*Male.*—Much darker than *E. cupreiventris*, and without any glittering colours, the general tint being very dark greenish olive-bronze, rather more rufescent on the upper surface, and darker on the crown.

I am of the same opinion as Mr. Salvin about this bird, which is probably another doubtful form of *E. cupreiventris*.

\*369. *ERIOCNEMIS SAPPHIROPYGIA*, Tacx., P.Z.S., 1874, p. 139.

*Sapphire-vented Puff-leg*, Gould, Mon. Troch., Suppl., 1886, p. 71.

*l'Eriocnémis à sous caudales, couleur de saphir*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 37.

*Habitat*.—Peru.

*Adult*.—Upper parts bronzy-green, passing into pure green on the rump and uppertail-coverts. Wings purplish-black. Under surface glittering green. Undertail-coverts shining sapphire-blue. Tarsal tufts white. Tail dark blue. Bill black.

Total length,  $4\frac{1}{4}$  in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen,  $1\frac{1}{8}$ .

This rare species was discovered in Peru by Mr. Jelski. I think it is unique in the Museum of Varsovia. In my opinion it may turn out to be only a variety of *E. cupreiventris*.

\*370. *ERIOCNEMIS GLAUPOIDES*, d'Orb. and Laf., Syn. Av., 1838, t. iii., p. 27.

*Trochilus d'orbignyi*, Bourc. and Muls., Ann. Sc. Phys. Nat. Lyon, 1846, p. 320.

*Hylocharis d'orbignyi*, Gray, Gen. Birds, vol. i. p. 114.

*Thalurania glaucopoides*, Reich., Aufz. der Colib., 1853, p. 7.

*Phemonoe d'orbignyi*, Reich., Troch. Enum., p. 6, pl. 741, f. 4697.

*D'Orbigny's Puff-leg*, Gould, Mon. Troch., vol. iv., p. 278.

*l'Eriocnémis de d'Orbigny*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 30.

*Habitat*.—Bolivia.

*Male*.—Forehead violet-blue, a white spot behind the eye. Uppersurface bronzy-green. Undersurface glittering golden-green, washed with blue on the throat and chest. Tail bluish-black. Bill black. Tarsal tufts white. Undertail-coverts shining blue.

Total length,  $4\frac{1}{2}$  in. Wing, 2. Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

Type unique in the Paris Museum.

This rare species was discovered in Bolivia, by the celebrated Naturalist, d'Orbigny. It was dedicated to him, by Messrs. Mulsant and Bourcier, but having been described eight years before by d'Orbigny and Lafrernaye under the name of *Ornismya glaucopoides*, this name has the priority.

371. *ERIOCNEMIS LUCIANI*, Bourc, Ann. Soc. Agr. Lyon, 1847, p. 624.

*Hylocharis luciani*, Gray, Gen. Birds, vol. i., p. 114.

*Eriopus luciani*, Bon. Consp. Gen. Av., 1850, vol. i., p. 80.

*Buquet's Puff-leg*, Gould, Mon. Troch., vol. iv., p. 273.

*l'Eriocnémis de Lucien*, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 47.

*Habitat*.—Ecuador.

*Male*.—Forehead shining greenish-blue. Upperside shining golden-green passing to glittering green on rump and upper-tail coverts. Tail blue-black, with a greenish-bronze tinge on median rectrices on some specimens. Underside metallic golden-green, greener on throat. Undertail-coverts shining blue. Tarsal tufts white. Wings purplish-brown. Bill black.

Total length, 5 in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{13}{16}$ .

It is a common species in Ecuador.

It was discovered in that country, by Delattre, and dedicated to the late Mr. Lucien Buquet, who was for many years, Treasurer of the French Entomological Society.

372. *ERIOCNEMIS MOSQUERAE*, Bourc. and Delatt, Rev Zool., 1846, p. 306.

*Hylocharis mosquerae*, Gray, Gen. Birds, vol. i., p. 114.

*Eriopus mosquerae*, Bon. Consp., Gen. Av., 1850, vol. i., p. 80.

*Threptria mosquerae*, Reich., Troch., Enum., p. 6.

*Mosquera's Puff-leg*, Gould, Mon. Troch., vol. iv., p. 274.

*l'Eriocnémis de Mosquera*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 49.

*Habitat*.—Colombia and Ecuador.

*Male*.—Forehead, back, and rump bronzy-green, golden on neck, and luminous gold on uppertail-coverts. Median rectrices shining bronzy-green, laterals bronzy-green with black tips, outermost one nearly black with a bronze tinge. Throat metallic golden passing to reddish-gold on neck and breast. Flanks and abdomen shining golden-green. Tarsal

tufts white. Undertail-coverts shining bluish-green. Wings purplish. Bill black.

Total length,  $4\frac{5}{8}$  in. Wings,  $2\frac{7}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{6}{8}$ .

This rare species was discovered in Colombia, by Delattre, and dedicated by him and Bourcier, to General Mosquera, then President of the Republic of Colombia.

373. ERIOCNEMIS ISAACSONI, Parz. Rev. Zool., 1845, p. 95.

*Hylocharis isaacsoni*, Gray, Gen. Birds, vol. i., p. 114.

*Eriopus isaacsoni*, Bon. Conspect. Gen. Av., 1850, p. 80.

*Eriocnémis isaacsoni*, Bon. Rev. and Mag. Zool., 1854., p. 52.

*Phemonoe isaacsoni*, Reich., Aufz. der Colib., 1853, p. 9.

*Helianthea isaacsoni*, Elliot, Ibis, 1874, p. 331.

*Saturia isaacsoni*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 299.

*Long-billed Puff-leg*, Gould, Mon. Troch., vol. iv., p. 272.

*la Saturie d'Isaacson*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 300.

*Habitat*.—Colombia.

*Male*.—Upper part of head dark metallic green; a small spot of very luminous light grass-green upon the forehead. Back grass-green, inclined to bronze in certain lights. Wings like the back; primaries purplish-brown. Rump and upper-tail-coverts brilliant metallic grass-green. Entire throat brilliant metallic grass-green. Breast metallic green, lighter than the throat. Rest of underparts metallic coppery-bronze, changing in certain lights to red upon the abdomen. Undertail-coverts brilliant grass-green. Tail brownish-black with a purple shade. Bill black. Tarsi covered with short white feathers.

Total length,  $4\frac{3}{4}$  in. Wing,  $2\frac{3}{4}$ . Tail, 2. Culmen, 1.

This extremely rare species, dedicated by Parzudaki to Mr. Isaacson, is only represented in the Collections by three specimens, one the type, "Ex Elliot Collection," is now in the New York Museum of Natural History, the second one is in the Liverpool Museum, and the third in my Collection.

GENUS CII., **Pterophanes**, Gould, Int., Troch., 1861, p. 105.

LEPIDORIA. Muls. and Verr., Class. Troch., 1865, p. 61.

TYPE: *O. temminckii*, Boissonneau.

Bill cylindrical, narrow, longer than the head, slightly curved upward at the point. Wings very large, falcate, longer than the tail. Tail large and forked. Rectrices broad, median shortest, lateral and outermost ones slightly and gradually longer. Feet small, hind toe shorter than the middle one, claws long, slightly curved, and sharp at the point. Sexes unlike.

*Habitat*.—Colombia, Ecuador, Peru, and Bolivia.

374. PTEROPHANES TEMMINCKI, Boiss., Rev. Zool., 1839,  
p. 354.

*Trochilus cyanopterus*, Fras., P.Z.S., 1840, p. 17.

*Mellisuga temmincki*, Gray Gen. Birds, vol. i., p. 112.

*Lepidoria temmincki*, Muls. and Verr., Class. Troch., 1865,  
p. 61.

*Temminck's Sapphire-wing*, Gould, Mon. Troch., vol. iii.,  
p. 178.

*le Ptérophane de Temminck*, Muls., Hist. Nat. Ois. Mou.,  
1876, t. ii., p. 291.

*Habitat*.—Colombia, Ecuador, Peru, and Bolivia.

*Male*.—Upperside shining dark green, appearing nearly black on neck and back, in certain lights. Tail shining bronze-green. A white spot behind the eye. Underside brilliant shining dark green. Wings metallic deep blue, each feather tipped with purplish-black. Bill black. Feet flesh colour.

Total length,  $6\frac{1}{2}$  in. Wing,  $4\frac{1}{2}$ . Tail, 3. Culmen,  $1\frac{1}{8}$ .

*Female*.—Head dark brown. Upperside golden-green. Tail bronze-green, outermost rectrice white, margined with brownish-bronze. Rump and uppertail-coverts shining green. A white spot behind the eye. Throat, breast, and abdomen rufous. Flanks and sides of breast shining golden-green with base of feathers rufous. Undertail-coverts dark green. Greater wing coverts metallic blue, primaries and secondaries purplish-brown. Bill black.

Total length, 6 in. Wing, 4. Tail,  $2\frac{7}{8}$ . Culmen,  $1\frac{1}{8}$ .

This species was probably discovered in Columbia, by Boissonneau, the author of the species.

My specimens from Peru, and Bolivia collected by M. M. Whitely and Buckley, are larger, and slightly different in colouration. The upper and underside are of a darker green, the median rectrices and uppertail-coverts are not bronzy, but dark shining green, the lateral and outermost ones are dark bronzy-brown margined with brownish-black. If they should prove distinct, I propose the name of *Pterophanes peruvianus*, for that species, Whitely's specimens from Peru, having been collected first.

## FAMILY X. HELIANTHEIDAE,

OR FAMILY OF STAR-FRONTLET HUMMING BIRDS.

Body large. Bill long, nearly straight. Culmen closely feathered at the base; nasal covers completely hidden. Tail forked. Wings long, reaching the end of tail. Sexes unlike.

TYPE: *Helianthea*, Gould, Int., Troch., 1861, p. 130.

Range.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

GENUS CIII. DIPHLOGAENA, Gould, Int. Troch, 1861, p. 133.

TYPE:—*D. iris*, Gould.

Bill slender, straight, very long, about twice the length of the head. Wings long and pointed, reaching the end of tail. Tail long and forked. Rectrices narrow, median long and shortest, lateral and outermost ones slightly and gradually longer. Tarsi clothed. Sexes unlike in plumage.

*Habitat*.—Ecuador, Peru, and Bolivia.

375. DIPHLOGAENA IRIS, Gould, P.Z.S., 1853, p. 61.

*Helianthea aurora*, Gould, P.Z.S., 1853, p. 61.

*Hypochrisia aurora*, Reich., Aufz. der Colib., 1853, p. 9.

*Hypochrisia iris*, Reich., Aufz. der Colib., 1859, p. 9.

*Leadbeatera warszewiczi*, Reich., Aufz. der Colib., 1853, p. 9.

*Coeligena warszewiczi*, Reich., Aufz. der Colib., 1859, p. 23.



*Diphlogaena aurora*, Gould, Mon. Troch., vol. iv, p. 248.

*Diphlogaena iris buckleyi*, Berlepsch, Ibis, 1887, p. 295.

*Rainbow*, Gould, Mon. Troch., vol. iv., p. 247.

*Bolivian Rainbow*, Gould, Mon. Troch., vol. iv., p. 248.

*la Diphlogène iris*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 302.

*la Diphlogène aurore*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 303.

*Warzewicz's Inca*, Gould, Mon. Troch., Suppl., 1886, p. 21.

*Habitat*.—Ecuador, Peru, and Bolivia.

*Male*.—Forehead brilliant metallic golden-green, changing to orange-scarlet on the sides of crown. Centre of crown deep metallic blue. Neck and upper part of back very dark bronze-green appearing almost black in certain lights. Lower part of back, rump, abdomen, uppertail and undertail-coverts, and tail chestnut-red. Throat and breast glittering green, with a small spot of purplish in the centre. Wings purplish-brown, secondaries chestnut margined at tips with purplish-brown. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $3\frac{3}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $1\frac{1}{8}$ .

*Female?*—Head and neck golden-green with a bright spot on forehead. Back bronzy-green. Rump, uppertail-coverts, and tail, chestnut-red, all the rectrices, excepting the outermost ones, slightly tipped with bronze. Throat buff, spotted with green. Breast green streaked with grayish buff. Abdomen and flanks chestnut. Vent white. Rest like the male.

Total length,  $5\frac{1}{4}$  in. Wing, 3. Tail,  $2\frac{1}{4}$ . Culmen,  $1\frac{1}{8}$ .

It is a very rare species. It was discovered in Bolivia, by Mr. Warszewicz. The type of the species is in the British Museum. "Ex. Coll. Gould." My specimens were collected by Buckley.

376. *DIPHLOGAENA HESPERUS*, Gould, Ann., Mag. Nat. Hist., 1865, p. 127.

*Ecuadorian Rainbow*, Gould, Mon. Troch., Suppl., 1886, p. 20.

*la Diphlogène hesperus*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., 304.

*Habitat*.—Ecuador.

*Male*.—Forehead metallic fiery-red on the sides of crown. Centre of crown brilliant metallic blue with purplish reflections. Lower part of head and rest of upperside bronzy-green, appearing nearly black, on head and upper part of back. Uppertail and undertail-coverts, and tail chestnut-red, margined with bronze at tips. Underside brilliant shining green with the throat of the most brilliant gold, under which is a spot of metallic lilac. Wings-coverts bronzy-green, secondaries chestnut-red with the tips margined with purplish-brown, primaries chestnut-red on outer shafts, inner ones purplish-brown. Bill black.

Total length,  $5\frac{5}{8}$  in. Wing,  $3\frac{3}{8}$ . Tail,  $2\frac{6}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female* ?—Head fiery-red with a blue streak in the middle. Underside glittering golden-green washed with grayish-buff. Rest like the male.

Total length,  $5\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{2}{8}$ . Culmen,  $1\frac{1}{8}$ .

All my specimens of this extremely rare and fine species were collected in Upper Amazon, by Buckley.

I should not be surprised that *D. iris* and *hesperus*, should turn out to be the same species, all the adult male specimens being those with the upper and underside green, and all the others with chestnut on back and abdomen, female or young.

#### GENUS CIV. *Helianthea*, Gould, Int. Troch., 1861, p. 130.

TYPE: *T. violifera*, Gould.

Bill long, straight, and cylindrical, much longer than the head. Wings moderately long and powerful, reaching the end of tail. Tail long and slightly forked. Rectrices broad, median long, and shortest, the two next, very slightly and gradually longer, the last lateral, and the outermost one very slightly longer, and of the same length. Tarsi short and clothed. Feet very small, hind toe the shortest. Sexes unlike.

*Habitat*.—Venezuela, Peru, and Bolivia.

377. *HELIANTHEA VIOLIFERA*, Gould, P.Z.S., 1846, p. 87.

*Mellisuga violifera*, Gray, Gen. Birds, vol. i., p. 112.

*Helianthea violifer*, Bon. Consp., Gen. Av., 1850, p. 75.

*Calligenia violifera*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 313.

*Violet-throated Star-frontlet*, Gould, Mon. Troch., vol. iv., p. 239.

*la Calligénie volifère*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 314.

*Habitat*.—Bolivia.

*Male*.—Spot on forehead brilliant metallic green. Top of head dark green appearing almost black. Back and rump golden-green. Uppertail-coverts and tail rufous tipped with pale bronzy-green. Throat dark green with a broad metallic spot in the lower central part, violet-blue. Breast shining green with a very narrow white band across the middle. Abdomen and flanks rufous washed with golden-green on flanks. Undertail-coverts light rufous. Wing-coverts golden-bronze, secondaries rufous at base, then bronzy-brown, primaries purple; outer edge of first primary rufous for four-fifths of its length. Bill black.

Total length,  $5\frac{2}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{3}{16}$ . Culmen,  $1\frac{1}{4}$ .

*Female*.—Like the male with the throat rufous mottled with green.

This very rare species was discovered by Mr. Bridges.

I have only one male specimen, collected in Bolivia, by Buckley.

\*378 *HELIANTHEA OSCULANS*, Gould, P.Z.S., 1871, p. 503.

*Calligenia osculans*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 310.

*Buff-tailed Star frontlet*, Gould, Mon. Troch, Supple., 1886, p. 22.

*la Calligénie à gemme violette*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 310.

*Habitat*.—Peru.

*Male*.—Very closely allied to *H. violifera*, from which it differs only by being destitute of the white band across the breast, more green on the abdomen, the apical half of the median rectrices, bronzy-green, and the tips of laterals have a large band of bronzy-green.

Total length,  $5\frac{3}{8}$  in. Wing, 3. Tail,  $2\frac{3}{8}$ . Culmen,  $1\frac{1}{4}$ .

*Female*.—Has no frontal nor gular spot. Throat buff spotted with green, rest like the male.

Type in British Museum.

\*379. HELIANTHEA DICHROURA, Tacz., P.Z.S., 1874, p. 138.

*Calligenia dichroura*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 309.

*Jelsky's Star-frontlet*, Gould, Mon. Troch., Suppl., 1886, p. 23.

*Habitat*.—Peru.

*Male*.—Very closely allied to *H. osculans*, from which it differs only by the apical band of the tail feathers, which is more apparent in this species, and darker.

For me, it is a doubtful species, probably the same as *H. osculans*.

Type in the Warsaw Museum. It was collected near Maragnioc, Peru, by M. Jelsky.

380. HELIANTHEA EOS, Gould, P.Z.S., 1846, p. 11.

*Mellisuga eos*, Gray, Gen. Birds, vol. iii., p. 5.

*Hypochrysis eos*, Reich., Aufz. der Colib., 1853, p. 9.

*Calligenia eos*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 311.

*Golden Star-frontlet*, Gould, Mon. Troch., vol. iv., p. 237.

*La Calligénie aurore*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 311.

*Habitat*.—Venezuela.

*Male*.—Forehead brilliant metallic golden-green. Rest of head velvety-black, with dark green reflections, when viewed from behind. Back shining golden-green, passing to fiery-gold on rump and uppertail coverts. Tail cinnamon, broadly tipped with golden-bronze. A white spot behind the eye. Throat metallic dark-green, with a broad spot in the centre brilliant metallic violet. Breast brilliant metallic golden-green, passing to gold on lower part and fiery-gold on abdomen and flanks. Undertail-coverts cinnamon. Wing-coverts golden, secondaries cinnamon, margined narrowly at tips with golden-bronze, primaries bronzy-purple, outer edge of first primary for four-fifths of its length cinnamon. Bill black.

Total length, 5 $\frac{3}{4}$ in. Wing, 3. Tail, 2. Culmen, 1 $\frac{1}{4}$ .

*Female*.—Head dark shining green. Upperside golden-green passing to gold on rump and uppertail-coverts. Tail

cinnamon passing to golden-bronze. Throat rufous mottled with small green spots. Breast golden-green. Abdomen and flanks bright gold, the base of all the feathers of the underside rufous, rest like the male.

Total length,  $5\frac{3}{4}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $1\frac{1}{4}$ .

This handsome and rare species was discovered in Venezuela, by M. M. Funch and Schlim.

I have a fine series of this species collected in Venezuela by Mr. Briceno.

GENUS CV. **Hypochrysia**, Reich., Aufz. der Colib.,  
1853, p. 9.

HELIANTHEA, Gould, P.Z.S., 1848, p. 11.

PHEMONE, Reich., Aufz. der Colib., 1853, p. 9.

SATURIA, Muls., Cat. Ois. Mou., 1875, p. 21.

TYPE: *O. bonapartei*, Boissonneau.

Bill long, straight, cylindrical. Wings long, reaching the end of tail. Tail moderately long and slightly forked. Median rectrices shortest, lateral and outermost ones slightly and gradually longer. Tarsi clothed. Sexes unlike. Rump brilliant metallic.

*Habitat*.—Colombia, Ecuador.

381. HYPOCHRYSIA BONAPARTEI, Boiss., Rev. Zool., 1840,  
p. 6.

*Trochilus aurogaster*, Fraz., P.Z.S., 1840, p. 16.

*Mellisuga bonapartei*, Gray, Gen. Birds, vol. i., p. 112.

*Helianthea bonapartei*, Gould, Mon. Troch., vol. iv., p. 236.

*Bonaparte's Star-frontlet*, Gould, Mon. Troch., vol. iv., p. 236.

*l'Helianthée de Bonaparte*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 295.

*Habitat*.—Colombia.

*Male*.—Forehead brilliant metallic green. Rest of head and back very dark green, appearing almost black on head in certain lights. Rump and uppertail coverts most brilliant metallic fiery-gold. Tail golden-bronze. Throat and breast

metallic brilliant green, brighter on breast. Centre of throat metallic purplish-blue. Abdomen and flanks brilliant metallic fiery-gold. Undertail-coverts shining gold margined with rufous. Wings bronzy-purplish-brown. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing, 3. Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Upperside shining green, golden on rump. Uppertail-coverts fiery-gold. Tail golden-bronze. Throat buff. Breast shining golden-green. Abdomen and flanks buff, washed with brilliant gold. Undertail-coverts buff. Wings bronzy-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $1\frac{1}{8}$ .

It is probable that Mr. Boissonneau was the discoverer of this fine species, which he dedicated to Prince Charles Lucien Bonaparte, the celebrated Ornithologist.

It is a common species in Colombia.

382. HYPOCHRYSLA HELIANTHEA, Less., Rev. Zool., 1838, p. 314.

*Mellisuga helianthea*, Gray, Gen. Birds, vol. i., p. 112.

*Helianthea typica*, Gould, Mon. Troch., vol. iv., p. 235.

*Helianthea porphyrogaster*, Muls., Hist. Nat., Ois. Mou., 1876, t. ii., p. 293.

*Star-frontlet*, Gould, Mon. Troch., vol. iv., p. 235.

*l'Hélianthée à ventre de porphyre*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 294.

*Habitat*.—Colombia.

*Male*.—Top of head and lores velvety-black. Forehead brilliant metallic green. Upperside dark green, appearing almost black on head and back. Lower part of rump metallic red-purple. Uppertail-coverts brilliant metallic light green. Tail dark olive bronze-green. Chin and breast very dark green. Centre of throat metallic dark blue. Abdomen and flanks brilliant metallic lilac. Undertail-coverts dark reddish-purple. Wings purplish-brown. Bill black.

Total length, 5 in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $1\frac{1}{4}$ .

*Female*.—Upperside shining green, golden on back. Rump and uppertail-coverts brilliant metallic light green margined with purple. Tail and wings like the male. Throat buff. Breast golden-green washed with buff. Abdomen and flanks



buff washed with metallic lilac, especially so on flanks. Undertail-coverts olive-bronze, margined with buff. Bill black.

Total length,  $4\frac{7}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $1\frac{1}{4}$ .

This species is abundant in Colombia.

I have one male specimen, nearly adult, without the frontal spot of forehead, and the abdomen and flanks shining gold with a lilac tinge on flanks. It looks as if it was an hybrid of *H. bonapartei* and *H. typica*. I have also one specimen from Colombia which I described in the *Humming Bird*, 1891, vol. i., p. 26, almost dark bluish-black, with the gular, spot and uppertail-coverts dark silvery-green. Tail purplish-black. Wings black. Maxilla black. Mandible flesh colour at base. Rest black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{1}{16}$ .

If it should prove a distinct species, I propose for it the name of *Hypochrysis nigra*.

GENUS CVI. **Calligenia**, Muls., Cat. Ois. Mou., 1875, p. 20.

TYPE: *T. lutetiae*, Delattre and Bourcier.

Bill straight, cylindrical, long, about twice the length of the head. Feathers of forehead projecting on culmen. Wings long, reaching the end of tail. Tail long, forked. Rectrices narrow. Median long and shortest, the two next, very slightly and gradually longer, the last lateral and outermost ones, slightly longer and of the same length. Tarsi clothed. Sexes unlike.

*Habitat*.—Ecuador.

383. CALLIGENIA LUTETIAE, Delatt. and Bourc., Rev. Zool., 1846, p. 307.

*Mellisuga lutetiae*, Gray, Gen. Birds, vol. i., p. 112.

*Helianthea lutetiae*, Gould, Mon. Troch., vol. iv., p. 238.

*Comte de Paris*, Gould, Mon. Troch., vol. iv., p. 238.

*la Calligénie à gemme bleue*, Muls., Hist. Nat., Ois. Mou., 1876, t. ii., p. 307.

*Habitat*.—Ecuador and Colombia.

*Male*.—Forehead brilliant metallic green. Crown and nape velvety-black with dark bronze-green reflections in certain

lights. Upperside dark-green, appearing black in the centre of back in certain lights. Uppertail-coverts bronzy-green. Tail dark bronze-green. Underside brilliant shining green, base of feathers black. Centre of throat brilliant metallic-blue. Vent white. Undertail-coverts, bronze-green, margined with grayish-buff. Wing coverts dark bronzy-green, secondaries pale yellowish-buff, tipped with purplish-brown, primaries purplish. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Upperside shining green, golden on uppertail coverts. Tail bronze-green. Throat buff. Underside shining golden-green, base of feathers grayish buff, giving a scaly appearance to that part. Rest like the male.

Total length,  $5\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{2}{8}$ .

This beautiful species was discovered in Ecuador, by Delattre, and dedicated by him and Bourcier, to Comte de Paris.

My specimens were collected in Ecuador, by Buckley. I have also one specimen received from Bogota, Colombia.

GENUS CVII. **Eudisia**, Muls., Cat. Ois. Mou., 1875, p. 20.

TYPE: *D. travièsi*, Mulsant and Verreaux.

Bill straight, long, about twice the length of the head. Wings long, reaching the end of tail. Tail long, slightly forked. Median rectrices shortest, lateral and outermost ones very slightly and gradually longer. Metallic frontal spot. Centre of throat white. No white on tail.

*Range*, Colombia.

This genus stands exactly between *Homophania* and *Calligenia*, having some of the characters belonging to these two genera.

384. EUDISIA TRAVIÈSI, Muls. and Verr, Ann., Soc., Linn., Lyon, 1866, p. 199.

*Traviès Inca*, Gould, Mon. Troch. Suppl., 1886, p. 25.

*l'Eudisie de Traviès*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 3.

*Habitat*.—Colombia.

*Male*.—Small frontal spot brilliant metallic green with bluish reflections. Head and back very dark bronzy-green appearing almost black, with a greenish gloss in centre of crown. Wing-coverts and rump, bronze-green. Uppertail-coverts shining reddish-purple. Tail dark greenish-bronze. Throat minutely spotted, metallic dark green with a small metallic violet spot in the centre beneath. A broad white band on breast. Abdomen and flanks dark shining green, appearing almost black on lower part of breast. Undertail-coverts golden-green. Wings purplish-brown. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $3\frac{1}{2}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Unknown.

This extremely rare species came first in a lot of birds sent from Bogota, Colombia. It was dedicated by M. M. Mulsant and Verreaux to Mr. Traviés, a celebrated painter of natural history objects. The type remained for some time in Verreaux's Collection, and finally was sold to the late Count Turati of Milan, whose celebrated collection was given to the Natural History Museum of Milan, by his heirs. Besides the type, I think there are only three other specimens known, one "Ex. Coll. Elliot," now in the Museum of New York, one in the British Museum, and one fine male specimen in my collection, from which the above description was taken.

GENUS CVIII. **Homophania**, Reich., Aufz. der Colib.,  
1853, p. 10.

*Polyaena*, Heine., Journ. fur Ornith., 1843, p. 215.

TYPE: *O. torquata*, Boissonneau.

Bill long, straight, about twice the length of the head. Feathers of forehead projecting on the culmen. Nostrils hidden. Wings broad, long, reaching the end of tail. Tail long, slightly forked. Median rectrices broad and long, remainder of rectrices very slightly and gradually longer, nearly all white. Entire breast pure white. Metallic spot in the centre of crown. Sexes unlike in plumage.

*Habitat*.—Colombia, Ecuador and Peru.

385. HOMOPHANIA TORQUATA, Boiss., Rev. Zool., 1840, p. 6.

*Mellisuga torquata*, Gray, Gen. Birds, vol. i., p. 112.

*Bourcieria torquata*, Gould, Mon. Troch., vol. iv., p. 251.

*Collared Inca*, Gould, Mon. Troch., vol. iv., p. 251.

*l'Homophanie à collier*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 317.

*Habitat*.—Colombia.

*Male*.—Centre of crown metallic purplish-blue. Rest of head and back black with greenish reflections when seen from behind. Lower part of back, rump and undertail-coverts dark shining green. Median rectrices dark olive-green, rest white, tipped with bronzy-black, outermost one white for two-thirds of its length, rest olive-bronze. Throat black with dark green in centre. Breast pure white. Abdomen and flanks black with greenish reflections. Undertail-coverts dark shining green. Wings purplish-brown. Bill black.

Total length,  $5\frac{1}{4}$  in. Wing, 3. Tail, 2. Culmen,  $1\frac{2}{8}$ .

*Female*.—Crown bluish-green. Upperside shining green, with golden reflections when seen from behind, darker on neck. Tail bronze-green, laterals white, tipped with bronzy-black, outermost one margined on upper part of outer web and tipped with blackish-bronze. Chin white, spotted with green. Breast pure white. Abdomen and flanks gray, washed with green, especially on flanks. Undertail-coverts bronze-green. Wings purplish-brown. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Young*.—Upperside black with greenish reflections. Uppertail-coverts and median rectrices dark olive-green. Laterals white with black tips, outermost ones white at base, margined on outer web, and tipped with purplish-black. Underside black with streaks of white feathers on breast. Undertail-coverts dark shining green, margined with white. Wings purple. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

Some of my specimens of this species were collected in Colombia by Mr. Salmon, another in Ecuador, by Buckley.

386. HOMOPHANIA FULGIDIGULA, Gould, Mon. Troch., vol. iv., p. 252.

*Bourcieria fulgidigula*, Reich., Troch. Enum., 1855, p. 7.

*Green Throated Inca*, Gould, Mon. Troch., vol. iv., p. 252.

*l'Homophanie à gorge brillante*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 319.

*Habitat*.—Ecuador.

*Male*.—Exactly like the preceding species, with the exception of the centre of crown which is metallic bluish-green or metallic silvery-green, and the chin and throat which are brilliant metallic dark green.

Total length,  $4\frac{5}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{7}{8}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Crown metallic grass-green with bluish reflection. Upperside dark golden-green when viewed from behind. Median rectrices dark bronze-green, lateral and outermost ones white with purplish-black tips. Throat dark shining green with the centre white. Breast pure white. Abdomen and flanks gray, washed with green, more so, on flanks. Undertail-coverts green, margined with white. Wings purplish. Bill black.

Total length,  $4\frac{1}{16}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{3}{8}$ .

My specimens of this species were collected in Ecuador, in 1879, by Buckley.

\*387. HOMOPHANIA INSECTIVORA, Tschudi, Faun., Peru, 1844, p. 248.

*Bourcieria insectivora*, Gould, Int. Troch., 1861, p. 135.

*Homophanie insectivore*.

*Tschudi Inca*, Gould, Mon. Troch., Suppl., 1886, p. 26.

*Habitat*.—Peru.

*Male*.—Head and back of neck, jet black, with the centre of the crown metallic grass-green. Back, uppertail-coverts, abdomen, and undertail coverts, shining grass-green. Breast pure white. Wings purplish-brown, their coverts like the back. Median rectrices shining grass-green, remainder pure white, tipped with green, most extensive on the outermost feathers. Bill black.

Total length,  $5\frac{1}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{4}$ .

*Female*.—Entire upper parts and throat shining green. Median rectrices green, rest white, tipped with black and glossed with green. Rest like the male. "Elliot's Syn. H. Birds, p. 76."

Type of species in the Museum of Neuchatel.

Type of male, "Elliot's Coll.," now in the New York Museum of Natural History.

This species is one of my desiderata.

388. HOMOPHANIA CONRADI, Bourc., P.Z.S., 1847, p. 45.

*Mellisuga conradi*, Gray, Gen. Birds, vol i., p. 112.

*Bourcieria conradi*. Gould, Mon. Troch., vol. iv., p. 253.

*Conradinia conradi*, Reich., Aufz. der Colib., 1853, p. 10.

*Conrad's Inca*, Gould, Mon. Troch., vol. iv., p. 253.

*l'Homophanie de Conrad*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 321.

*Habitat*.—Venezuela.

*Male*.—Top of head and part of crown shining golden-green. Upperside dark green with golden reflections, when viewed from behind. Uppertail-coverts and median rectrices golden-green. Lateral and outermost ones white for two thirds of their length from base, rest golden-green. Chin, throat, abdomen, flanks and undertail-coverts brilliant metallic green, more so, on throat. Breast pure white. Wings purplish, with a bronzy-gloss. Outer shaft of first primary, reddish-buff for about three-thirds of its length. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{4}$ .

*Female*. — Upperside shining grass-green. Uppertail-coverts and median rectrices golden-green. Lateral and outermost ones white with golden-green tips, darker on outermost. Throat buffy-white, with the sides metallic-green. Breast pure white. Abdomen, flanks and undertail-coverts shining green, grayish in the centre of abdomen. Wing like that of the male. Bill black.

Total length,  $5\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{1}{4}$ .

I have a fine series of this beautiful species collected in Merida, Venezuela, by Mr. Biiceño.

The type is in the Loddige's Collection.

389. HOMOPHANIA INCA, Gould, Jard. Contr. Ornith., 1852, p. 136.

*Bourcieria inca*, Bon., Rev. and Mag., Zool., 1854, p. 252.

*Inca*, Gould, Mon. Troch., vol. iv., p. 254.

*l'Homophanie inca*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 322.

*Habitat*.—Peru and Bolivia.

*Male*.—A luminous emerald-green spot on forehead. Rest of head jet black, with golden reflections, when viewed from



behind. Upperside brilliant metallic green. Uppertail-coverts brilliant golden-green. Median rectrices bronzy-green, remainder white, with their terminal third bronzy-green. Throat black, tips of feathers metallic golden-green. Breast deep reddish-buff. Abdomen and flanks glittering dark golden-green. Undertail-coverts shining green. Wings purple. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Upperside dark golden-green, darker on head in consequence of the black base of feathers. Uppertail-coverts shining golden-green. Median rectrices bronze-green, lateral and outermost ones white, margined on outer webs, and tipped with bronze-green. Throat reddish-buff spotted with brown. Breast deep buff. Rest of underside metallic green washed sparingly with buff. Undertail-coverts green, margined with grayish-buff.

Total length, 5 in. Wing,  $2\frac{7}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{1}{4}$ .

This rare and handsome species was discovered in Bolivia, by Mr. Warszewicz.

My specimens were collected by Buckley.

390. HOMOPHANIA LAWRENCEI, Boucard, H. Bird, 1892, vol. ii., p. 87.

*Lawrence's Humming Bird.*

*l'Homophanie de Lawrence.*

*Habitat*.—Colombia.

*Male*.—Crown metallic dark green. Upperside dark bronzy-green, black in certain lights. Uppertail-coverts shining green. Median rectrices bronze-green, laterals pale buff with tips bronze-green. Wings purplish. Throat and sides of breast metallic dark green, most brilliant. Breast pure white. Abdomen and flanks dark bronzy-green, almost black. Undertail-coverts shining green, with the base of feathers pale buff. Bill black. Feet flesh colour with black nails.

Total length,  $4\frac{7}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $1\frac{1}{8}$ .

This species is easily distinguished from *H. insectivora* by the colour of its rectrices.

Type unique in my collection.

GENUS CIX. **Urochroa**, Gould, Int. Troch., 1861, p. 56.

TYPE: *T. bougueri*, Bourcier.

Bill straight, twice the length of the head. Nostrils exposed. Wings long, reaching the end of tail. Tail square, rectrices rounded at tips, all of the same length. Feet large. Tarsi partly clothed, hind toe of the same length as the middle toe.

*Habitat*.—Ecuador.

391. UROCHROA BOUGUERI, Bourc., Compt. Rend., 1851, t. xxxii., p. 186.

*Coeligena bougueri*, Reich., Aufz. der Colib., 1853, p. 7.

*Urochroa leucura*, Lawr., Ann. N.Y. Lye., Nat. Hist., 1864, vol. viii., p. 43.

*Pied-tail*, Gould, Mon. Troch., vol. ii., p. 57.

*l'Urochoé de Bouguer*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 193.

*Habitat*.—Ecuador.

*Male*.—Upperside coppery-bronze. Median rectrices very dark bronze-green, the others white, margined on outer webs, and tipped with blackish-brown. Spot behind the eye buff. Chin, throat, and upper part of breast metallic dark blue with greenish reflections. Rest of underside dark grayish-brown washed with green. Undertail-coverts bronzy-green. Wings purplish-brown. Bill black.

Total length,  $5\frac{3}{8}$  in. Wing,  $3\frac{2}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Unknown.

This very rare species was discovered in Ecuador, by Bourcier. He dedicated it to Mr. Pierre Bouguer.

I have only one specimen, "Ex. Coll. Rucker."

GENUS CX. **Bourcieria**, Bon. Compt. Rend, 1850, p. 380.

LAMPROPYGIA, Reich., Aufz. der Colib., 1853, p. 10.

PILONIA, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii, p. 4.

TYPE.—*T. prunellei*, Bourcier.

Bill very long, straight, pointed at tip. Wings long, reaching the end of tail. Patch of white feathers on sides of breast. Tail long, broad, slightly forked, median shortest,

lateral and outermost ones very slightly and gradually longer. Tarsi bare. Sexes alike.

*Habitat*.—Venezuela, Colombia, Ecuador, Peru and Bolivia.

392. *BOURCIERIA PRUNELLEI*, Bourc. and Muls., Ann. Soc., Agr., Lyon, 1843, p. 36.

*Mellisuga prunelli*, Gray, Gen. Birds, vol. i., p. 112.

*Homophania prunelli*, Reich., Aufz. der Colib., 1853, p. 10.

*Coeligena prunelli*, Gould, Mon. Troch., vol. iv., p. 257.

*Lampropygia prunelli*, Gould, Int. Troch., 1861, p. 137.

*Pilonia prunelli*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 4.

*Prunelle's Coeligene*, Gould, Mon. Troch., vol. iv. p. 255.

*la Pilonie de Prunelle*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 5.

*Habitat*.—Colombia and Ecuador.

*Male*.—Head black with a bronzy-greenish gloss. Neck black with a bluish gloss. Upperside black, but when seen from behind it is brilliant metallic purplish-red passing to golden on rump. Uppertail-coverts bluish-purple. Tail purplish black. Underside purplish-black. Centre of throat metallic bluish-green. A broad white patch on each side of breast. Shoulders brilliant metallic silvery-blue. Undertail-coverts bronzy-black fringed with white. Wings purple. Bill black.

Total length,  $5\frac{2}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Coloured like the male, but not so black. Lateral and outermost rectrices with tips slightly margined with dark gray.

This species was dedicated to Doctor Prunelle by Messrs. Mulsant and Bourcier.

I have one specimen from Ecuador, collected by Buckley.

393. *BOURCIERIA ASSIMILIS*, Elliott, Ibis., 1876, p. 56.

*Elliot's Inca*, Gould, Mon. Troch. Suppl., 1886, p. 26.

*Coeligène semblable*.

*Male*.—Exactly like the preceding species, excepting the colour of throat, which is metallic purple.

I don't consider it as a species, having received in the same box, and from the same locality, specimens coloured like this mixed with the others.

394. BOURCIERIA PURPUREA, Gould, Mon. Troch., vol. iv.,  
p. 256.

*Purple Coeligene*, Gould, Mon. Troch., vol. iv., p. 256.

*le Coeligène pourpre*.

*Male*.—Exactly like the preceding species with more purple on back, when seen from behind. I don't consider it a species, but a young male of *B. prunelli*.

I have received specimens from Bogota, corresponding exactly to the above description.

395. BOURCIERIA WILSONI, Delatt and Bourc., Rev. Zool.,  
1846, p. 305.

*Mellisuga wilsoni*, Gray, Gen. Birds, vol. i., p. 112.

*Coeligena wilsoni*, Bon., Consp. Gen. Av., 1850, p. 73.

*Lampropygia wilsoni*, Reich., Troch. Enum., p. 7.

- Pilonia wilsoni*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii.,  
p. 7.

*Wilson's Coeligene*, Gould, Mon. Troch., vol. iv., p. 258.

- la Pilonie de Wilson*, Muls., Hist. Nat. Ois. Mou., 1876, t.  
iii., p. 7.

*Habitat*.—Colombia and Ecuador.

*Male*.—Upperside dark bronzy-brown, coppery on neck more or less, according to specimens, with a bright silvery greenish gloss on back and rump when seen from behind, Uppertail-coverts bronzy-brown, reddish at lower part. Tail bronze-green, or reddish-bronze. Throat metallic purple. A broad patch of white on each side of breast. Underside rufous-brown, bronzy-green on flanks. Vent white. Undertail-coverts bronzy-green, margined with deep buff. Wings purplish-brown. Bill black.

Total length, 5in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Like the male, but paler in colouration, sides of throat blackish brown, rectrices margined with buff. Same size as the male.

I have one specimen with the throat metallic purple intermixed with green; but I think nothing of it, these birds varying much in colouration according to age.

This species was discovered at Juntas, Colombia, by Delattre, who dedicated it to Mr. Thomas Wilson, a liberal

patron of Natural Sciences, who gave his ornithological Collection to the Museum of the Academy of Philadelphia.

GENUS CXI. **Lampropygia**, Cab. and Heine., Mus. Hein., t. iii., p. 78.

COELIGENA, Bon. Compt., Rend., 1850, p. 380.

TYPE.—*O. coeligena*, Lesson.

Bill long, straight, nearly twice the length of the head. Wings narrow, long, and pointed, reaching the end of tail. Tail long, slightly forked. Median rectrices long, shortest, lateral and outermost ones, slightly and gradually longer. Undertail-coverts very short. Sexes similar.

*Habitat*.—Venezuela, Colombia, and Bolivia.

396. LAMPROPYGIA COELIGENA, Cab. and Heine, Mus. Hein., t. iii., p. 78.

*Coeligena typica*, Bon. Consp., Gen., Av., 1850, p. 73.

*Ornismya coeligena*, Less. Troch., 1832, p. 141.

*Mellisuga coeligena*, Gray, Gen. Birds, vol. i., p. 112.

*Coeligene*, Gould, Mon. Troch., vol. iv., p. 255.

*la Lampropygie coeligène*, Muls., Hist. Nat. Ois. Mou, 1876, t. iii., p. 11.

*Habitat*.—Venezuela.

*Male*.—Upperside shining coppery-purple, with the rump brilliant metallic-green, when seen from behind. Tail dark olive-bronze with purplish reflections. Throat grayish-white, with blackish-brown in centre of each feather. Lower part of breast, abdomen, and flanks dark gray with a rufous tinge, and washed with reddish-bronze on flanks. Undertail-coverts rufous. Wings shining purple. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{1}{4}$ . Culmen,  $1\frac{1}{4}$ .

*Female*.—Exactly like the male, but slightly paler in colouration. Tips of lateral and outermost rectrices pale buff.

I have one specimen of this species, "Ex. Coll. Costa de Beauregard," which I believe to be the type of Lesson. The others were collected in Venezuela, by my friend, Doctor Carlos Rojas.

397. LAMPROPYGIA COLUMBIANA, Elliot, Ibis, 1876, p. 57.

*Colombian Inca*, Gould, Mon. Troch. Suppl., 1886, p. 27.

*le Coeligène de Colombie.*

*Habitat.*—Colombia.

*Male.*—Upperside golden-brown. When viewed from behind it shines brilliantly, and the rump appears metallic silvery-green. Tail shining golden-bronze. Throat white, with the centre feathers blackish-brown. Underside smoky-gray, darker on the abdomen, and washed with golden-bronze on flanks. Undertail-coverts greenish-bronze margined with rufous. Wings purple. Bill black.

Total length, 5in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female.*—Slightly paler in colouration, lateral rectrices and outermost ones margined with grayish-buff. Abdomen and undertail-coverts rufous.

This species has been confused by many authors for the preceding one of Lesson. Mr. Elliot was the first to separate them, and I am of his opinion.

The type of the male "Ex. Elliot Collection" is now in the New York Museum of Natural History.

Among my specimens, the typical female from which the above description was taken was collected in Colombia, by Mr. Salmon.

398. LAMPROPYGIA BOLIVIANA, Gould, Int. Troch., p. 137.

*Bolivian Inca*, Gould, Mon. Troch., Suppl., 1886, p. 27.

*la Coeligène de Bolivie.*

*Habitat.*—Bolivia.

*Male.*—Exactly like the preceding species from which it could not be distinguished if it was not for its tail which is dark olive-brown, passing to purplish-brown, the brownish streaks of throat are more conspicuous than in the specimens of *B. colombiana*, and the upperside is darker.

Total length,  $5\frac{1}{2}$ in. Wing,  $3\frac{1}{4}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $1\frac{1}{4}$ .

*Female.*—Upperside golden-bronze. When viewed from behind, the rump is metallic pale green. Uppertail-coverts purple, margined with rufous. Tail golden-bronze at base, passing to dark purple, all the tips of rectrices margined with buff. Throat grayish-buff with olive-brown in the centre of



feathers. Breast grayish-brown. Abdomen and flanks rufous-gray washed with pale bronze-green on flanks. Undertail-coverts olive-brown margined with rufous. Wings purple. Bill black.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen, 1.

Type of female in my collection.

It was collected in Bolivia, by Buckley.

I have given the descriptions of the three species known of *Lampropygia*, as former authors have done ; but I should not be surprised, when more specimens of these birds are collected by true Ornithologists, that it will be found that they are all females, or young males, of *Bourcieria wilsoni*, and probably of another or several allied species.

## FAMILY XI. HELIODOXIDAE.

OR FAMILY OF BRILLIANT HUMMING BIRDS.

Size moderately large. Bill of moderate length, or long and straight. Sheath of box maxilla and mandible smooth. Nasal covers completely concealed. Wings narrow and long. Tail more or less forked. Males usually very brilliant. Brilliant gular spot, or throat brilliant, as in the genera *Eugenes* and *Sternoclyta*. Sexes unlike.

TYPE: *Heliodoxa*, Gould, P.Z.S., 1849, p. 95.

Range.—United States, Mexico, Guatemala, Costa Rica, Colombia, Venezuela, Ecuador, Peru, Guiana and Brasilia.

GENUS CXII. **Leadbeatera**, Bon., Consp., Gen. Av.,  
1850, p. 70.

TROCHILUS, Tsch. Faun., Per., 1845-46, t. 23, p. 249.

ASPATA, Hein., Journ. fur Ornith., 1863, p. 179.

HYPOLIA, Muls., Cat. Ois., Mou., 1875, p. 17.

Bill short, stout, and straight. Feathers of the forehead projecting on the maxilla, and covering the nostrils. Crown metallic. Wings, long, narrow and pointed, reaching the end of tail. Tail forked. No gular spot. Tarsi clothed. Sexes unlike.

TYPE: *Leadbeatera grata*, Bon., Consp. Gen. Av., 1850, p. 70.

Range: Colombia, Venezuela, Peru, and Bolivia.

399. LEADBEATERA GRATA, Bon., Consp. Gen. Av., 1850, p. 70.

*Heliodoxa leadbeateri*, Bourc., Rev. Zool., 1843, p. 102.

*Trochilus otero*, Tsch. Faun., Peruana, 1845-46, t. xxiii., p. 249.

*Leadbeatera otero*, Reich., Aufz. der Colib., 1853, p. 7.

*Leadbeatera sagitta*, Reich., Aufz. der Colib., 1853, p. 7.

*Caeligena sagitta*, Reich., Aufz. der Colib., 1853, p. 23.

*Heliodoxa otero*, Gould, Mon. Troch., vol. ii., p. 96.

*Leadbeatera splendens*, Gould, Int. Troch., 1861, p. 74.

*Aspasta leadbeateri*, Hein., Journ. for Ornith, 1854, p. 180.

*Hypolia leadbeateri*, Muls., Hist. Nat. Ois. Mou. 1876, vol. ii., p. 207-211.

*Heliodoxa parvula*, Berlepsch., Col. Art., 1888, p. 8.

*Leadbeater's Brilliant*, Gould, Mon. Troch., vol. ii., p. 96.

*Otero Brilliant*, Gould, Mon. Troch., vol. ii., p. 96.

*Hypolie de Leadbeater*, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 207.

*Habitat*.—Venezuela, Colombia, Peru and Bolivia.

*Male*.—Crown of head metallic blue with purplish reflections or metallic bluish-green. Nape and uppertail-coverts coppery-red. Upperside golden-green. Median rectrices bronze, laterals blackish-bronze with bronze tips in some specimens, in others, the three outermost ones are bluish-black. Throat and breast metallic brilliant golden-green or brilliant emerald green. Abdomen and flanks dark shining green. Undertail-coverts green, margined with gray. Vent white. Wings purple-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Forehead shining metallic green. Neck coppery-red. Upperside golden-green. Median rectrices bronze, laterals bluish-black, typed with white. Underside white, each feather tipped with metallic-green or golden-green.

Lower part of abdomen rufous. Undertail-coverts olive-green, edged with gray and rufous.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

This species is abundant in Colombia, but rarer elsewhere. I am of the same opinion as Mr. Elliot about the difficulty of separating the specimens from Venezuela, Peru and Bolivia, having in my collection some specimens from Colombia, exactly like those from Venezuela and Bolivia, known as *H. otero* and *H. splendens*. They vary very much in colouration.

Type of Bourcier from Colombia in my collection. It is labelled *Leadbeatera leadbeateri*. It was dedicated by him to Mr. John Leadbeater.

GENUS CXIII. **Hylonympha**, Gould, Ann. and Mag. Nat. Hist., 1873, p. 429.

TYPE: *H. macrocerca*, Gould.

Bill longer than the head, stout, and slightly curved. Feathers of forehead covering the nostrils. Wings long and narrow. Tail very long, deeply forked, the external rectrices are twice the length of the one next to it, very broad, and rounded at tip. Feet small. Tarsi partly clothed. Sexes unlike.

*Habitat* —Brazil ?

400. **HYLONYMPHA MACROCERCA**, Gould, Ann. and Mag. Nat. Hist., 1873, p. 429.

*Great forked tailed Humming-bird*, Gould, Mon. Troch. Suppl., 1886, p. 37.

*l'Hylonymphe à grande queue*, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 57.

*Habitat*.—Brazil ?

*Male*.—Forehead and crown metallic violet-blue. Nape and back dark bronze, nearly black. Rest of upperside dark green. Throat and breast metallic emerald-green. Flanks dark green. Abdomen black, washed with green. Undertail-coverts brownish-black. Tail glossy black.

Total length, 8 in. Wing,  $2\frac{6}{8}$ . Tail,  $5\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Differs from the male by a much shorter tail and is very varied in colouration, the outermost feather is tipped with grayish-white. Laterals bluish-black with outer webs rufous. Medians bluish-black. Throat and breast white, spangled with green. Abdomen and flanks rufous. Rest like the male.

Total length,  $5\frac{7}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{3}{4}$ . Culmen, 1.

A good number of specimens of this remarkable species were offered for sale in 1873 at the London Docks. Another lot came shortly after. No more has come since. The typical specimen was a poor skin. It was secured by Mr H. Whitely, and sold by him, to John Gould. I remember as if it was yesterday, and the excitement it caused to him. At that time I was living at Great Russell Street. He brought it to me at once, and I could scarcely believe that it was a real species. We thought at first that it was a tail of something else stuck into the body of a *Chalybura*, but after a careful examination we agreed that it was a new and remarkable genus. I have never been able to know, with certainty, where it came from, but it is probable that the locality for this curious bird is North Brazil or Trinidad.

GENUS CXIV. **Heliodoxa**, Gould, P.Z.S., 1849, p. 95.

LEADBEATERA, Bon. Consp., Gen. Av., 1850, p. 70.

TYPE: *H. jacula*, Gould.

Bill short, stout and straight, slightly longer than the head. Feathers of the forehead projecting on the bill and covering the nostrils. Wings long, narrow and pointed, reaching the tips of the second lateral rectrices. Tail long, forked; medians shortest, laterals gradually longer, outermost ones slightly longer than the last lateral. Brilliant gular spot. Tarsi clothed. Sexes unlike.

*Habitat*.—Venezuela, Colombia, Ecuador, Peru and Bolivia.

401. HELIODOKA JACULA, Gould, P.Z.S., 1849, p. 96.

*Leadbeatera jacula*, Bon. Consp., Gen. Av., 1850, p. 70.

*Coeligena jacula*, Reich., Troch. Enum., 1855, p. 4.

*Green-crowned Brilliant*, Gould, Mon. Troch., vol. ii., p. 94.

*l'Heliodoxe à fer de lance*, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 202.

*Habitat*.—Colombia.

*Male*.—Crown of the head and underside brilliant metallic emerald-green. Upperside dark green, bronzy on neck and uppertail-coverts. Median rectrices purplish-bronze, next one bluish-black margined and tipped with purplish-bronze, remainder of rectrices bluish-black. In the centre of the throat a good spot of metallic blue. Abdomen and flanks dark shining golden-green. Undertail-coverts dark green, sometimes edged with grayish-white. Wings purple-brown. Bill black. Vent and line on sides of flanks white.

Total length, 5in. Wing, 3. Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Forehead metallic green. Upperside bronzy-green on neck. Four median rectrices bronzy-green, remainder bluish-black tipped with white. Underside white with the tips of all the feathers bright green. Centre of abdomen grayish-buff, rest like the male.

Total length,  $4\frac{1}{2}$ in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

Young males have a line beneath the eyes and lores, reddish-buff.

I have a fine series of this species from Colombia.

402. HELIODONA JAMESONI, Bourc., Compt., Rend., 1851, t. xxvii., p. 187.

*Coeligena jamesoni*, Reich., Aufz. der Colib., 1853, p. 7.

*Leadbeatera jamesoni*, Bon. Rev. and Mag. Zool., 1854, p. 251.

*Jameson's Brilliant*, Gould, Mon. Troch., vol. ii., p. 95.

*l'Héliodexe de Jameson*, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 205.

*Habitat*.—Ecuador.

*Male*.—Closely allied to the preceding species, but has only the front and a narrow line on the crown metallic green, the tail is bluish-blue in its entirety, and the glittering part of the underside is not so dark.

Total length,  $5\frac{3}{8}$ in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen, 1.

*Female*.—Exactly like that of *H. jacula*.

Total length,  $4\frac{6}{8}$ in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen, 1.

I think that Professor Jameson, of Quito, is the discoverer of this species. It was dedicated to him by Bourcier.

My specimens were collected in Ecuador, by Buckley.

403. HELIODOXA HENRICI, Lawr. Ann., Nat. Hist., 1866,  
p. 402.

*Heliodoxa berlepschi*, Boucard, H. Bird, 1892, vol. ii., p. 75.  
*Costa-Rica Brilliant.*

*l'Heliodoxe de Costa Rica.*

*Habitat*.—Costa Rica, Veragua.

*Male*.—Crown of the head, throat, and breast glittering metallic green with golden reflections. Upperside dark green passing to shining-green on rump, and golden-green on uppertail-coverts. Median rectrices steel-blue, margined with greenish-bronze, laterals steel-blue. Centre of throat spotted with metallic blue. Abdomen, flanks and undertail-coverts, golden-green. Wings purplish-brown. Bill black.

Total length, 5 in. Wing, 3. Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Underside shining-green with a golden tinge on the head and neck. Median rectrices bronze-green passing to bluish-black at tips. Laterals bluish-black tipped with white. Underside white, each feather tipped with golden-green. Wings dark brown. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $\frac{7}{8}$ .

*Young Male*.—Upper and underside golden-green with sides of throat rufous.

This species is closely allied to *H. Jamesoni*, but it is much more bright on flanks, the crown is fully metallic, the bill is shorter, and the female has not the rufous abdomen of *H. Jamesoni*.

I collected my specimens at Naranjo, and on the Volcano of Irazu, Costa Rica, in 1877, but I have also some specimens collected by Arcé, in Veragua.

My friend, Count Berlepsch, to whom I communicated my typical specimens of *H. berlepschi*, informed me that it was identical with *H. henrici*, Lawr.

GENUS CXV. **Lampraster**, Tacz., P.Z.S., 1874, p. 140.

· TYPE: *L. branicki*, Taczanowski.

Bill longer than the head, straight. Tail as long as the body, greatly forked. Undertail coverts exceed half the length of the rectrices. Tarsi covered with feathers to the toes.

*Habitat*.—Peru.



\*404. LAMPRASTER BRANICKI, Tacz., P.Z.S., 1874, p. 140.

Count *Branicki Humming-bird*, Gould, Mon. Troch. Suppl., 1886, p. 18.

*le Lampraste de Branicki*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 200.

*Habitat*.—Peru.

*Male*.—Centre of the crown occupied by a line of brilliant green, which commences at the base of maxilla and changes to blue in the centre of the head. Upper parts shining green. Throat metallic rose, changing to violet in certain lights. Chin brilliant green. Breast shining green. Lower part of abdomen, undertail-coverts, and tarsi white. Greater wing-coverts grass-green, secondaries rufous at base and blackish-brown on remaining parts. Median rectrices grass-green. Laterals black, glossed with violet. Maxilla black. Mandible flesh colour.

Total length, 105 mill. Wing, 68. Tail, 40. Bill at gape, 26.

*Female*.—Unknown.

This unique bird is in the Warsaw Museum, and was discovered in Peru by Mr. Jelski.

It was dedicated by Taczanowski to the late Count Constantin Branicki, the liberal patron of the Warsaw Museum.

GENUS CXVI. **Xanthogenyx**, d'Hamonville, Bull., Soc. Zool. de France, 1883, t. viii., p. 77.

TYPE.—*H. xanthogenys*, Salvin.

Bill short, straight, scarcely longer than the head. Feathers of forehead projecting on culmen, and covering the nostrils. Wings long, nearly reaching the end of tail. Tail short, pointed, and slightly forked. Median rectrices shortest, the others slightly and gradually longer. Tarsi clothed. Sexes unlike.

*Habitat*.—Roraima, British Guiana.

405. XANTHOGENYX SALVINI, d'Ham., Bull., Soc. Zool. de France, 1883, t. 8., p. 77.

*Heliodoxa xanthogenys*, Salvin. Ibis., 1881, p. 80.

*Guiana Brilliant*, Gould, Mon. Troch., Suppl., 1886, p. 19.

*la Xanthogenye de Salvin*, d'Ham., Bull., Soc. Zool. de France, 1883, t. viii. p. 77.

*Habitat*.—Roraima, British Guiana.

*Male*.—Forehead glittering golden-green, terminating in a point on the crown. Rest of crown and nape dark bronzy-green, appearing black in certain lights. Rest of upperside shining green, with a bronze tinge on the back. Uppertail-coverts shining green. Median rectrices brownish-bronze, laterals brownish-black. Chin, throat, and breast glittering emerald-green, golden on chin. In the centre of the throat a spot of glittering purple-blue feathers. Abdomen and flanks dark bronzy-green. Spot behind the eye and vent white. Undertail-coverts dark green, edged with gray. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{11}{16}$ .

*Female*.—Upperside shining green, with a bronzy tinge, metallic on forehead. Median rectrices bronze-green, dark on tips, laterals bluish-black, two of them and the outermost ones slightly tipped with grayish-white. Underside white, each feather tipped with metallic-green. Centre of abdomen and vent, white. Wings purple-brown, maxilla black, mandible flesh colour, with black tip.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

This very fine species was discovered at Roraima, British Guiana, by Mr. Henry Whitely. My specimens of both sexes are from him. It is a very rare species.

\*406. *XANTHOGENIX HYPOSTICTA*, Gould, P.Z.S., 1862, p. 124.

*Aphantochroa hyposticta*, Gould, P.Z.S., 1862, p. 124.

*Spotted breasted Humming-bird*, Gould, Mon. Troch., Suppl., 1886, p. 7.

*la Xanthogenye tachetée*.

*Habitat*.—Ecuador.

Upperparts dark green. Wings purplish-brown. Feathers of throat, breast, and abdomen white at base and tipped with green. Flanks green; undertail-coverts green, edged with white. Median rectrices, green, remainder green at base,

shading into black and edged with white. Bill black, except base of mandible, which is flesh-colour.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{4}$ . Tail,  $1\frac{7}{8}$ . Culmen, 1.

I am of opinion that the bird described by Gould as *Aphantochroa hyposticta*, finds its proper place here.

407. XANTHOGENIX ALEXANDRI, Boucard, H. Bird, 1891, vol. i., p. 18.

*Aphantochroa alexandri*, Boucard, H. Bird, vol. i., p. 18.

*Alexander's Humming Bird.*

*la Xanthogenye d'Alexandre.*

*Habitat.*—Demerara, "British Guiana."

*Female*, or Young Male.—Forehead metallic golden-green. Upperside shining golden-green. Uppertail-coverts shining green. Median rectrices dark bronze-green. Laterals bronzy at base passing to brownish-black with a small buffy-white spot on tips of the two outermost ones. Underside brilliant metallic golden-green with a line of pale buffy-white in the centre of the abdomen. Undertail-coverts dark green, edged with rufous. Wings very narrow, purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 4 in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

Type unique in my collection.

It was collected at Demerara, by Mr. Alexander, from whom I purchased it in 1878.

Since I described this species in 1891, I have sent my typical specimen to Count Berlepsch, who, after a careful examination, identified it as XANTHOGENIX SALVINI. As to the genus I quite agree with him, but not as to the species. My opinion is that it is a species quite distinct from *X. salvini*, and that it is better to leave it so for the present.

GENUS CXVII. **Iolaema**, Gould, Int. Troch., 1861, p. 73.

IONOLAIMA, Reich., Aufz. der Colib, 1853, p. 9.

IONOLOEMA, Gould, Mon. Troch., 1857, pt. xiii.

TYPE: *T. schreibersi*, Bourcier.

Bill stout, straight, longer than the head, nostrils hidden by frontal feathers. Wings long, reaching the tips of third lateral

rectrices. Tail long, and deeply forked. Median rectrices the shortest, lateral and outermost ones gradually longer. Tarsi clothed. Feet large, hind toe shorter than middle toe. Sexes unlike.

*Habitat*.—Colombia, Ecuador and Peru.

408. *IOLAEMA SCHREIBERSI*, Bourcier, P.Z.S., 1845, p. 43.

*Thalurania schreibersi*, Bon. Cons. Gen. Av., 1850, vol. i., p. 77.

*Calothorax schreibersi*, Gray, Hand. List. Birds, vol. i., p. 136.

*Campylopterus schreibersi*, Bon., Rev. and Mag., Zool., 1854, p. 250.

*Heliodoxa schreibersi*, Reich., Troch., Enum., 1855, p. 6.

*Ionolaima frontalis*, Lawr., Ann., Lyc. Nat. Hist., N.Y., vol. vi., p. 263.

*Schreiber's Humming Bird*, Gould, Mon. Troch., vol. ii., p. 93.

*Emerald-fronted Humming Bird*, Gould, Mon. Troch., vol. ii., p. 92.

*L'Îolème de Schreiber's*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 139.

*Habitat*.—Ecuador.

*Male*.—Front brilliant metallic green, golden in some specimens. Rest of head and upperside golden-green passing to shining green on uppertail-coverts. Tail steel-blue with greenish reflections. Chin, upper part of throat, middle of breast, and abdomen black. Rest of throat metallic violet-blue, beneath which is a broad band of glittering golden-green. Flanks dark bronze green. Undertail-coverts blackish-blue. Wings purple-brown. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*?—Upperside shining green, golden on lower part of head and neck. Median rectrices bronze-green, laterals steel-blue, the outermost ones tipped with white. Underside grayish-white passing to light buff on centre of abdomen, each feather tipped with metallic green. Undertail-coverts olive-bronze, edged with buffy-gray. Wings purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{7}{8}$ .

This fine and rare species was discovered by Mr. Natterer, and sent to Mr. Loddiges, in which collection it is still. It was described by Bourcier, and dedicated to Mr. Schreibers, Director of the Vienna Museum of Natural History, at that time. It was a male specimen, not quite adult, without the metallic feathers of the forehead.

Many years after, Mr. Lawrence, of New York, received some fine adult males, so different from the type, that he described it again as *I. frontalis*, but I am quite certain that they all belong to one species.

I have in my collection some very adult males, females, and young, exactly like the type of *I. schreibersi*.

\*409. *IOLAEMA WHITELYANA*, Gould, Ann. and Mag. of Nat. Hist., 1872, p. 4.

*Whitely's Humming Bird*, Gould, Mon. Troch., Suppl., 1886, p. 16.

*l'Iolème de Whitely*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 141.

*Habitat*.—Peru.

*Male*.—Very closely allied to the preceding species. I have examined Gould's types, one male adult and one male junior, now in the British Museum, and the only difference which I have been able to see between the two are the following:—The lower part of the throat is not so purple, and it has no golden-green band beneath it, that part is black. I am not certain about the validity of this species.

It was collected in Peru, by Mr. H. Whitely.

\*410. *IOLAEMA LUMINOSA*, Elliot, Ibis, 1878, p. 188.

*Lawrence's Sapphironia*, Gould, Mon. Troch., Suppl., 1886, p. 97.

*l'Iolème brillant*.

*Habitat*.—?

*Male*.—Top of head and nape dull dark green. Chin and sides of throat black. Centre of throat most brilliant topaz, changing, according to the light, into a flame-colour or a brilliant emerald-green. Back bronzy-green, graduating into a rich purplish-red upon the uppertail-coverts. Breast, flanks

and abdomen brilliant metallic coppery-red. Wings dark purple. The tail has the median rectrices bronze. The laterals are dark purple tinged with green on the outer webs. Undertail-coverts, reddish-bronze, margined with white. Bill black. Feet brownish-black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{4}$ . Tail, 2. Bill, 1.

"Elliot's Syn. of H. Birds, page 58."

The type of this most beautiful species is unique in the British Museum. "Ex. Gould Coll."

GENUS CXVIII. **Sternoclyta**, Gould, Int. Troch., 1861, p. 57.

TYPE: *S. cyanopectus*, Gould.

Bill long, stout, rather arched, and much longer than the head. Wings long and pointed, reaching near the end of tail. Tail moderate, and forked, rectrices rounded at tips, median shortest, lateral and outermost ones slightly and gradually longer. Tarsi partly clothed. Sexes unlike. Size large.

*Habitat*.—Venezuela.

411. STERNOCLYTA CYANOPECTUS, Gould, P.Z.S., 1846, p. 88.

*Polytmus cyanopectus*, Gray, Gen. Birds, vol. i., p. 108.

*Lampornis cyanopectus*, Bon., Consp., Gen. Av., 1850, p. 72.

*Saepiopterus cyanopectus*, Reich., Aufz. der Colib., 1853, p.

11.

*Campylopterus cyanopectus*, Bon., Rev. and Mag. Zool., 1854, p. 250.

*Blue-breast*, Gould, Mon. Troch., vol. ii., p. 58.

*la Poitrine bleue*.

*Habitat*.—Venezuela.

*Male*.—Upperside dark grass-green, spot on forehead brilliant golden-green. Median rectrices dark bronze-green, purplish at tips, lateral and outermost ones purplish-brown, the two outermost ones tipped with white internally. A white spot behind the eye. Ear-coverts dark-green. Throat brilliant metallic emerald-green. Breast brilliant metallic blue, with purplish reflections, and encircled with dark green, appearing almost black in certain lights. Flanks dark green. Abdomen grayish-buff, washed with green. Undertail-coverts



green, margined with grayish-buff. Wings purplish, with the internal webs of tertiaries chestnut. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Upperside like the male. Underside gray, the feathers tipped with green.

This rare species was discovered in Venezuela, by Mr. David Dyson, in 1866.

My specimens are from Porto-Cabello, Venezuela, and were presented to me by my friend, Mr. Eugène Simon.

GENUS CXIX. **Eugenia**, Gould, P.Z.S., 1855, p. 92.

TYPE: *E. imperatrix*, Gould.

Bill stout, straight, longer than the head. Nostrils covered with feathers. Wings long and pointed, reaching the end of second lateral. Tail long and much forked. Rectrices narrow, the median very short, next one slightly longer, the third twice the length of medians, the fourth two-and-a-half the length of medians, outermost ones three times longer than the medians. Feet strong. Tarsi feathered nearly to the toe. Sexes unlike.

*Habitat*.—Ecuador.

412. EUGENIA IMPERATRIX, Gould, P.Z.S., 1855, p. 92.

*Empress Humming Bird*, Gould, Mon. Troch., vol. iv., p. 234.

*l'Eugénie, impératrice*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 198.

*Habitat*.—Ecuador.

*Male*.—Spot on forehead brilliant metallic green. Upperside dark shining green with golden reflections when seen from behind. Tail bronzy-brown. A white spot behind the eye. Chin and throat dark metallic green. In the centre of the throat a spot of metallic violet. Breast shining dark green. Abdomen and flanks brilliant metallic golden-green. Undertail-coverts shining green. Thighs white. Wings purple-brown. Bill black.

Total length,  $5\frac{6}{8}$  in. Wing, 3. Tail, 3. Culmen, 1.

*Female*.—Upperside shining green. Underside grayish-white spangled with green. Median rectrices olive, laterals dark brown. Undertail-coverts grass-green.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{7}{8}$ .

*Young Male*.—Like the male with no frontal spot. Chin buff. Throat dark shining green.

This fine and rare species was discovered in Ecuador by Professor Jameson. It was dedicated by Gould, to Empress Eugénie.

GENUS CXX. **Docimastes**, Gould, Mon. Troch., 1849, pl. 233.

MELLISUGA, Gray, Gen. Birds, vol. i., p. 112.

DOCIMASTER, Bon. Consp., Gen. Av., 1850, vol. i., p. 74.

TYPE: *O. ensifera*, Boissonneau.

Bill very long, generally of the same length as the whole bird, inclining upwards at the tip and compressed laterally for nearly all its length, broader, and rounded close to the tip. Wings long and pointed, reaching the end of second lateral. Tail long and forked, medians shortest, lateral and outermost ones gradually longer, outermost ones twice as long as medians. Feet small, with the hind toe shorter than the middle one. Tarsi partly clothed. Sexes unlike

*Habitat*.—Colombia, Venezuela, Ecuador and Peru.

413. DOCIMASTES ENSIFERUS, Boiss., Rev. Zool., 1839, p. 354.

*Trochilus derbyanus*, Fras. P.Z.S., 1840, p. 16.

*Mellisuga ensifera*, Gray, Gen. Birds, vol. i., p. 112.

*Docimaster schliephackei*, Hein., Journ. fur Ornith., 1863, p. 215.

*Sword-bill*, Gould, Mon. Troch., vol. iv., p. 233.

*le Docimaste porte épée*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 287.

*Habitat*.—Venezuela, Colombia, Ecuador, and Peru.

*Male*.—Head coppery-green. Upperside bronzy-green with golden reflections, when seen from behind. Tail dark bronze. Throat dark green-bronze, appearing almost black in certain lights, base of feathers black. Sides of neck, and upperpart of breast shining emerald-green, only to be seen by presenting the bird to the light. Abdomen and flanks bronzy-green, centre of the former dark gray. Undertail-

coverts green, margined with white. Wings purple. Bill black.

Total length,  $7\frac{1}{2}$  to  $8\frac{1}{2}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{6}{8}$ . Culmen, 3-4.

*Female*.—Upperside like the male, but usually more golden. Lateral rectrices tipped with grayish-white, outermost ones with the outer webs and tips gray. Throat white with a central dark brownish-green streak. Underside shining green, base of feathers white giving a scaly appearance to that part, and more brilliant on breast. Centre of abdomen white or pale buff, rest like the male.

Total length,  $7\frac{1}{2}$  to  $8\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{2}{8}$ . Culmen, 3-4.

I cannot see any difference between the specimens from Colombia and Ecuador.

This remarkable species was probably discovered in Colombia, by Mr. Boissonneau, who described it. I have specimens from Colombia, Ecuador and Venezuela. Those from Ecuador were collected by Buckley, and one specimen only, collected by Mr. Briceno, in Merida, Venezuela, where it seems to be very rare.

GENUS CXXI. **Eugenes**, Gould, Int. Troch., 1861, p. 57.

TYPE: *T. fulgens*, Swainson.

Bill straight, longer than the head. Wings long and pointed, reaching the end of tail. Tail moderate and slightly forked, rounded at tips, median rectrices shortest, lateral and outermost ones slightly and gradually longer. Tarsi clothed, feet small, hind toe about equal in length to the middle one. Crown and throat luminous in male. Sexes unlike.

*Habitat*.—United States, Mexico, Guatemala and Costa Rica.

414. EUGENES FULGENS, Sw., Phil. Magaz., 1827, p. 441.

*Ornismya rivoli*, Less., Ois. Mou., 1829, p. 48.

*Mellisuga fulgens*, Gray, Gen. Birds, vol. i., p. 112.

*Delattria fulgens*, Bon., Consp., Gen. Av. 1850, p. 70.

*Coeligena fulgens*, Reich., Aufz. der Colib., 1853, p. 7.

*Eugenes viridiceps*, Boucard, Ann. Soc., Linn. Lyon., 1878.

*The Rivoli*, Gould, Mon. Troch., vol. ii., p. 59.

*l'Eugène de Rivoli*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 213.

*Habitat*.—United States, Mexico and Guatemala.

*Male*.—Top of head and crown brilliant metallic violet-blue. Upperside shining bronze-green, appearing almost black on neck and upper part of back, and with golden reflections when seen from behind. Median rectrices bronze-green, remainder bronzy-brown. A white spot behind the eye. Ear-coverts black. Throat brilliant metallic green. Underside dark bronze-green appearing almost black on breast and upper part of abdomen. Flanks bronze-green with golden reflections. Vent white. Undertail-coverts pale green, margined with white. Wings purplish. Bill black.

Total length, 5in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen, 1.

*Female*.—Upperside light golden-green, brownish on head. Median rectrices bronzy-green, coppery at tips, lateral and outermost ones bronze-green at base, with a broad subterminal black bar and white tips. Underside gray, washed with green, rest like the male.

Total length, 5in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

I have collected this species in Mexico and Guatemala, where it is abundant in the highlands.

I have one specimen of a young male from Guatemala which I have described in 1875, in the Annals of the Linnean Society of Lyon, under the name of *E. viridiceps*; but I think now that it is only a curious variety of plumage of this species.

It has the crown of head metallic silvery-green, the throat reddish-gray, and the rest of underside gray, washed with golden-green on sides of breast and on flanks, the lateral and outermost rectrices are broadly tipped with white, the bill is very long.

415. EUGENES SPECTABILIS, Lawr., Ann., N.Y., Lyc., Nat. Hist., 1867, vol. viii., p. 472.

*Eugenes spectabilis*, Boucard, P.Z.S., 1878, p. 68.

*Costa Rica Humming Bird*, Gould, Mon. Troch., Suppl., 1886, p. 17.

*l'Eugène remarquable*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 215.

*l'Eugène de Costa Rica.*

*Habitat.*—Costa Rica.

*Male.*—Forehead very dark green, nearly black. Top of head and occiput brilliant metallic dark blue, with purplish reflections. Neck and upper part of back dark green, appearing almost black in certain lights. Lower part of back, rump, and uppertail-coverts shining green. Tail bronze-green. A white spot behind the eye. Throat metallic dark green. Lores and ear-coverts dark green, appearing black. Underside dull golden-green, with base of feathers gray. Vent and a tuft of feathers on flanks white. Undertail-coverts pale green, margined with grayish-buff. Wings purplish. Bill black.

Total length,  $5\frac{5}{8}$  in. Wing,  $3\frac{2}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female.*—Upperside golden-green, brownish on head. Median rectrices bronze-green, laterals bronze-green, passing to brownish-black near the tips, which are white, outermost ones brownish-bronze, tipped with white. Underside gray. Throat spotted minutely with pale green, breast pale golden-green, abdomen and flanks washed with pale golden-green, rest like the male.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $1\frac{1}{2}$ .

This is a very rare species, a young one, collected in Costa Rica, was sent by Mr. Garcia to Mr. Lawrence, who described the species. It was the only specimen known. When I went to Costa-Rica, in 1877, I collected two fine specimens, male and female, at Rancho redondo. I described the male in the P.Z.S. 1878, p. 68, and now I describe the female. The types of male and female are in my collection, and the type of a young male or female in the New York Museum of Natural History (Ex. Coll. Lawrence).

## FAMILY XII. FLORICOLIDAE,

OR FAMILY OF LONG-BILLED STAR-THROAT HUMMING BIRDS.

Size moderately large. Bill long, nearly straight. Culmen closely feathered at the base, Nasal covers completely hidden. Wings narrow and long. Tail short, narrow, and rounded, excepting in the genera LEPIDOLARYNX and CALLIPERIDIA

in which it is forked in the males. Throat and crown, or crown alone metallic. Sexes unlike.

TYPE: *Floricola*, Elliot, Syn., Troch., 1879, p. 82.

Range.—Mexico to Peru, Colombia, Venezuela, Brazilia, Paraguay, Guiana and Trinidad.

GENUS CXXII. **Heliomaster**, Bon., Compt., Rend., 1850,  
p. 382.

CALLIPERIDIA, Reich., Aufz. der Colib., 1853, p. 12.

CALLOPISTRIA, Reich., Bon., Ann. Sc. Nat., 1854, p. 37.

TYPE.—*T. furcifer*, Shaw.

Bill long, slender, straight, about twice the length of the head. Wings narrow, reaching the end of second median rectrices. Tail deeply forked, rectrices narrow, median shortest, lateral and outermost ones gradually longer, outermost one longest. Sexes unlike.

Habitat.—Brazil and Paraguay.

416. HELIOMASTER FURCIFER, Shaw., Gen. Zool., vol. viii.,  
p. 280.

*Trochilus caudacutus*, Vieill., Nouv. Dict., Hist. Nat., 1817,  
p. 347.

*Heliomaster regis*, Schreib., Naturfors., Wien., Sept., 1832.

*Ornismya angelae*, Less. Illust., Zool., 1833, pl. 45.

*Heliomaster angelae*, Bon., Compt. Rend., 1850, p. 382.

*Ornithomya angelae*, Bon., Rev. and Mag., Zool., 1854, p.  
251.

*Campylopterus inornatus*, Burm., Reise., durch. Plata.,  
Staat., 1861, p. 447.

*Callipedia regis*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p.  
278.

*Angela Star-throat*, Gould, Mon. Troch., vol. iv., p. 263.

*la Callipédie d'Angèle*, Muls., Hist. Nat. Ois. Mou., 1876,  
t. ii., p. 279.

Habitat.—Brazil and Paraguay.

Male.—Head brilliant metallic silvery-green. Upperside shining golden-green, mixed with shining metallic green



feathers on upper part of back. Tail glossy dark green. Spot behind the eye white. Throat metallic crimson. A line from mandible, and the elongated feathers of throat glittering deep blue. Underside glittering deep blue. Undertail-coverts dark green. Vent and spot on side of flanks white. Wings purplish-brown. Bill black.

Total length, 5 in. Wing,  $2\frac{1}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Upperside golden-green. Lateral and outermost rectrices tipped with white. Underside grayish-white washed sparingly with green on sides of breast and flanks.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $1\frac{1}{8}$ .

The discoverer of this fine and rare species is probably Mr. Felix de Azara.

GENUS CXXIII. **Lepidolarynx**, Reich., Aufz. der Colib., 1853, p. 13.

ORNITHOMYA, Bon., Rev. and Mag. Zool., 1854, p. 251.

TYPE: *T. mesoleucus*, Temminck.

Bill straight, twice as long as the head. Feathers of forehead advancing to a point on the maxilla. Tail forked. Rectrices narrow, median rectrices shortest, laterals slightly and gradually longer, outermost ones longer than the third lateral, and shorter than the fourth. Sexes unlike.

*Habitat*.—Brazil.

417. LEPIDOLARYNX MESOLEUCUS, Temm., Pl. Color., pl. 317.

*Trochilus squamosus*, Temm., Pl. Color., pl. 203.

*Trochilus mystacinus*, Vieill., Ois. Dorés, t. iii., pl. 21.

*Mellisuga squamosus*, Steph., Gen. Zool., vol. xiv., p. 245.

*Ornismya temmincki*, Less., Ois. Mou., 1829, p. 110.

*Mellisuga melanoleuca*, Gray, Gen. Birds, vol. i., p. 112.

*Heliothorax mesoleucus*, Gould, Mon. Troch., vol. iv., p. 262.

*Ornithomya mesoleucus*, Bon., Rev. and Mag. Zool., 1854, p. 251.

*Calothorax mesoleucus*, Burm., Th. Bras., 1856, vol. ii., p. 339.

*Stripe-breasted Star-throat*, Gould, Mon. Troch., vol. iv., p. 262.

*le Lepidolarynx médiastin*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 284.

*Habitat*.—Brazil.

*Male*.—Top of head metallic silvery-green. Upperside dark bronzy-green, with golden reflections when seen from behind. Four median rectrices bronzy-green, last lateral dark bronzy-green, outermost one darker. Throat metallic crimson with purplish reflections. Underside dark shining green. In the centre, a white line from the breast to the undertail-coverts. Vent and tuft of feathers on sides of flanks white. A spot behind the eye and a line under it white. Undertail-coverts dark green margined with white. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Upperside dull bronzy-green or golden-green. Median rectrices bronze-green, lateral and outermost ones bronze-green with a subterminal blackish bar, and with white tips. Underside grayish-white with brownish spots on throat and some few scattered green feathers on sides of breast and flanks. Bill black.

Total length,  $4\frac{1}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Young Male*.—Upperside dull golden-green, sometimes with metallic green feathers on forehead, outermost rectrices tipped with white. Feathers of the throat dark olive-green margined with white. Underside dark green, with the white line in centre, as in adult males. Undertail-coverts olive-green margined with white.

What Elliot has described as the female is certainly a young male.

It is a common species in Brazil.

In the *Humming Bird*, 1891, vol. i., p. 26, I have mentioned a specimen of my collection agreeing exactly with the description of the adult male; but it has a very short bill, hardly  $\frac{6}{8}$  of an inch long.

#### GENUS CXXIV. *Floricola*, Elliot, Syn. Troch., 1879, p. 82.

*Trochilus*, Sw., Zool. Journ., 1827, p. 357.

*Trochilus*, Boié, Isis, 1831, p. 547.

*Heliomastes*, Bon., Rev. and Mag. Zool., 1854, p. 251.

*Selasphorus*, Reich., Troch. Enum., 1855, p. 11.

TYPE: *T. longirostris*, Vieillot.

Bill straight, longer than half the body, hooked at tips. Maxilla denuded of feathers at base, nostrils exposed. Wings narrow, rather long, reaching the end of tail. Tail slightly rounded, all the rectrices nearly of the same length. Sexes unlike.

*Habitat*.—Venezuela, Trinidad, Brazil, Guiana, Colombia, Ecuador and Peru.

418. FLORICOLA LONGIROSTRIS, Vieill, Ois. Dor., 1802, t. i., p. 107.

*Trochilus superbus*, Shaw, Nat. Misc., vol. xiii., pl. 517.

*Ornismya superba*, Less, Ois. Mou., 1829, p. 40.

*Ornismya longirostris*, d'Orb and Lafr., Syn. Av., 1838, t. ii., p. 29.

*Mellisuga longirostris*, Gray, Gen. Birds, vol. i., p. 112.

*Selasphorus longirostris*, Reich., Aufz. der Colib., 1853, p. 13.

*Heliomastes longirostris*, Bon., Rev. and Mag., Zool, 1854, p. 251.

*Heliomaster stuartae*, Lawr., Ann. Lye. Nat. Hist. N.Y., 1860, p. 261.

*Heliomaster albicrissa*, Gould, P.Z.S., 1871, p. 504.

*Long-billed Star-throat*, Gould, Mon. Troch., vol. iv., p. 259.

*l'Héliomaste de Corinne*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 272.

*White-vented Star-throat*, Gould, Mon. Troch. Suppl., 1886, p. 30.

*Habitat*.—Venezuela, Trinidad, Brazil, Guiana, Colombia, Ecuador and Peru.

*Male*.—Forehead and crown metallic green with bluish reflections. Upperside dark bronzy-green. A patch of white feathers in the middle of the rump. Median rectrices bronze-green, laterals bronze-green at base, passing to black with a spot of white on tips on the two laterals close to outermost ones, and larger on these last ones. Spot behind the eye, and

line under it white. Chin black. Throat metallic crimson. Underside gray, washed with green on sides of breast, and on flanks. A line of white from the centre of breast to lower part of abdomen, and vent white. A tuft of white feathers on flanks. Undertail-coverts greenish-black, margined with white. Wings purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Upperside bronzy-green. Throat white, margined with black, and sometimes with metallic crimson feathers on lower part. Underside gray, washed sparingly with pale green, on sides of breast and on flanks. Centre of abdomen and vent white, rest like the male.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $1\frac{3}{8}$ .

It is a common species.

Excepting a little more white on the centre of the abdomen, I cannot see any difference between the specimens from Guiana, Colombia, etc., and those from Ecuador, hence my authority for considering *H. albicrissa*, of Gould, as a synonym of this species.

419. FLORICOLA PALLIDICEPS, Gould, P.Z.S., 1871, p. 504.

*Pale green-headed Star-throat.*

*l'Héliomaste à tête d'un vert pâle*, Muls. Hist. Nat. Ois. Mou, 1876, t. ii., p. 275.

*Habitat*.—Guatemala, Costa Rica, Veragua, and Panama.

*Male*.—Forehead and crown metallic green. Upperside shining golden-green. A patch of white feathers in the middle of the rump. Median rectrices golden-bronze, next one of same colour, black at tips, lateral and outermost ones golden-bronze from the base to half their length, then black with white tips. Spot behind the eye, and line under it white. Ear-coverts brownish-black, chin black, throat metallic-crimson. Underside dark golden-green. Centre of breast gray, passing to white in centre, and lower part of abdomen. Vent and patch on flanks white. Undertail-coverts black, margined with white. Wings purplish. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Upperside shining golden-green, with a white patch on the rump. Tail like that of the male, but the white

tips on lateral and outermost rectrices are more conspicuous. Throat black margined with white. Underside gray, washed with golden feathers on sides of breast and on flanks. Centre of abdomen white, rest like the male.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{3}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{2}{8}$ .

This species is common in Guatemala.

I have four specimens, three males and one female, collected in Veragua by Arcé, which are very distinct in the colouration of the throat and the underside. The throat is metallic lilac with steel-blue reflections, the underside is gray or grayish-white, washed sparingly with golden-green feathers on flanks, remainder of plumage like *H. pallidiceps*. The female is coloured the same, excepting the throat, which is black margined with white. If it should prove a distinct species, I propose for it the name of *Helimaster veraguensis*.

420. FLORICOLA CONSTANTI, Delatt., Echo. du Mond. sav., 1843, p. 1069.

*Trochilus leocardiae*, Bourc., Ann. Sc. Nat. Lyon, 1852, t. iv., p. 141.

*Selasphorus constanti*, Reich., Aufz. der Colib, 1853, p. 13.

*Helimastes constanti*, Bon., Rev. and Mag., Zool., 1854, p. 251.

*Helimaster pinicola*, Gould, Mon. Troch., vol. iv., p. 261.

*Selasphorus longirostris*, Reich., Aufz. der Colib, 1853, p. 13.

*Helimastes leocardiae*, Bon., Rev. and Mag., Zool., 1854, p. 251.

*Constant's Star-throat*, Gould, Mon. Troch., vol. iv., p. 260.

*Pine Star-throat*, Gould, Mon. Troch., vol. iv., p. 261.

*l'Héliomaste de Constant*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 270.

*l'Héliomaste de Léocardie*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 277.

*Habitat*.—Mexico, Guatemala, and Costa-Rica.

*Male*.—Upperside pale bronzy-green, golden when seen from behind, with a patch of white feathers in the centre of

rump. Four median rectrices bronzy-green, dark at tips, laterals bronze-green with a broad subterminal black bar and white tips on inner webs. Spot behind the eye, and line from mandible to end of ear-coverts white. Ear-coverts brownish-black. Chin black. Throat metallic scarlet in some specimens, in others metallic rubi. Underside dark gray, washed with pale green on sides of breast and on flanks. Line in the centre of abdomen, vent, and tuft on flanks white. Undertail-coverts olive-brown margined with white. Wings purplish-brown. Bill black.

Total length,  $5\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{11}{16}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Upperside like the male, with all the lateral and outermost rectrices tipped with white. Chin and throat brownish-black, and the lower part metallic crimson, all the feathers tipped with gray. Underside like the male, but of a lighter gray.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{3}{8}$ .

This rare species was probably discovered in Guatemala, by Delattre.

I have collected some specimens in Mexico, and in Costa-Rica, where it is rare. I have also two specimens from Guatemala. As it is easy to see, the description of my female specimen, which I collected at San José, Costa-Rica, in 1877, corresponds exactly to the description of *H. leocardiæ*. For me, there is only one species which varies greatly in the colouring of throat, according to age and sex.

### FAMILY XIII. HEMISTEPHANIDAE,

OR FAMILY OF LANCE-BILL HUMMING BIRDS.

Size small. Bill long, straight and slender, slightly upturned in the shape of a lance, and feebly serrated. Wing narrow and short. Tail short and rounded. Forehead of males glittering. Sexes unlike.

TYPE: *Hemistephania*, Elliot, Syn. Troch., p. 81.

*Range*.—Veragua, Colombia, Venezuela, Guiana, Ecuador, and Bolivia.

GENUS CXXV. **Hemistephania**, Reich., Aufz. der Colib., 1859, p. 9.



DORYFERA, Gould, P.Z.S., 1847, p. 95, (name previously employed in Entomology by Illiger).

DORIFERA, Bon., Consp. Gen. Av., 1849, vol. i., p. 68.

DORYPHORA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 77.

TYPE: *T. ludoviciae*, Bourcier and Mulsant.

Bill very long, straight, slender and sharply pointed. Wings long,\*reaching the end of tail, outer web of first primary nearly obsolete. Tail rounded. Rectrices broad, outermost shortest, laterals and medians slightly and gradually longer.

*Habitat*.—Veragua, Colombia, Venezuela, Ecuador and Bolivia.

421. HEMISTEPHANIA LUDOVICIAE, Bourc. and Muls., Ann. Soc. Agr. Lyon., 1847, p. 136.

*Mellisuga ludoviciae*, Gray, Gen. Birds, vol. i., p. 112.

*Dorifera ludoviciae*, Bon., Consp., Gen. Av., vol. i., p. 68.

*Doryfera ludoviciae*, Gould, Mon. Troch., vol. ii., p. 88.

*Doryphora ludoviciae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 69.

*Doryfera rectirostris*, Gould, Int. Troch., 1861, p. 71.

*Green-fronted Lance-bill*, Gould, Mon. Troch., vol. ii., p. 88.

*Ecuadorian Lance-bill*, Gould, Mon. Troch. Suppl., 1886, p. 28.

*le Doryfère de Louise*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 201.

*Habitat*.—Venezuela, Colombia, Ecuador and Bolivia.

*Male*.—Forehead metallic grass-green or golden-green. Crown and nape coppery-bronze. Back dark shining green, passing into bluish-silvery-green on uppertail-coverts. Tail dark bronze at base, passing to black, and tipped with gray. Underside brownish-green, the base of each feather dark gray. Undertail-coverts bluish-green, broadly margined with gray. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Exactly like the male. Possibly it may be the specimens with golden forehead which are the females. There is scarcely any blue tinge on the undertail-coverts.

I have one specimen which I consider as an adult female which has the underside more grayish and no frontal spot.

Type of Bourcier in my collection.

This species was dedicated by M.M. Bourcier and Mulsant to Mrs. Louise Isidore Geoffroy Saint-Hilaire.

I consider *H. rectirostris*, Gould, as a synonym of this species, the only difference which I can see between them is the length of the bill which is one-eighth of an inch longer, but I have some specimens from Colombia with the bill very nearly as long.

My specimens were collected in Ecuador and Bolivia, by Buckley, in Venezuela, by Briceño, and the rest are from Colombia.

422. HEMISTEPHANIA VERAGUENSIS, Salv., P.Z.S., 1867, p. 154.

*Doryfera veraguensis*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 199.

*Veraguan Lance-bill*, Gould, Mon. Troch. Suppl., 1880, p. 29.

*le Doryfère de Veragua*, Muls., Hist. Nat. Ois. Mou. 1874, t. i., p. 199.

*Habitat*.—Veragua.

*Male*.—Forehead metallic green, nape purplish-red. Back bronzy-green passing to pale green on rump. Uppertail-coverts bluish-green. Tail black, lateral and outermost ones tipped with gray. Underside dark grayish-bronze, nearly black on throat. Undertail-coverts bluish-green, margined with gray. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{3}{8}$ .

I have only one specimen of this rare species collected by Arcé, in Vergua, where he discovered the species.

423. HEMISTEPHANIA JOHANNÆ, Bourcier, P.Z.S., 1847, p. 45.

*Trochilus violifrons*, Gould, P.Z.S., 1847, p. 95.

*Mellisuga johannæ*, Gray, Gen. Birds, vol. i., p. 112.

*Doryfera johannæ*, Gould, Mon. Troch., vol. ii., p. 87.

*Doryphora johannae*, Cab. and Hein., Mus. Hein., t. iii., p. 78.

*Doryfera euphrosinae*, Muls. and Verr., Ann., Soc., Linn., Lyon, 1870-71, t. xxviii., p. 319.

*Doryphora euphrosinae*, Sclat. and Salv., Nomenclator, Av., p. 82.

*Blue-fronted Lance-Bill*, Gould, Mon. Troch., vol. ii., p. 87.

*le Doryfère de Jeanne*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 197.

*Mulsant's Lance-bill*, Gould, Mon. Troch., Suppl., 1886, p. 28.

*le Doryfère d'Euphrosine*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 198.

*Habitat*.—Colombia.

*Male*.—Forehead metallic-blue, with violet reflections. Nape dark bronze, almost black in certain lights. Upperside bronze-green. Uppertail-coverts grayish-blue. Tail black, glossed with dark blue. Underside dark bluish-black, with dark bluish-green on sides of breast and on flanks. Undertail-coverts dark violet-blue. Wings purplish-brown, with a glossy dark bluish tinge on tertiaries. Bill black.

Total length, 4in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Forehead metallic bluish-green. Upperside bronze-green, coppery on nape. Uppertail-coverts grayish-blue. Tail bluish-black, with gray tips. Underside pale bluish-gray, with greenish reflections. Undertail-coverts pale bluish-purple. Wings like the male. Bill black.

Total length,  $3\frac{6}{8}$ in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $1\frac{1}{16}$ .

This rare species was discovered in Colombia by Mr. Matthews, and was dedicated by Mr. Bourcier to Miss Jane Loddiges, daughter of Mr. George Loddiges. The type is still in the Loddiges' collection.

With the female, Messrs. Mulsant & Verreaux made a new species under the name of *D. euphrosinae*; but I am certain that they are only the females of *H. johannae*.

424. HEMISTEPHANIA GUIANENSIS, Boucard, H. Bird, 1893, vol. iii., p. 10.

*Guiana's Lance-bill*.

*l'Hemistéphanie de la Guyane.*

*Habitat.*—British Guiana.

*Male.*—Exactly like the preceding species, with a dark shining bronze-green tinge on the throat and breast when presented flat, the bill against the light.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{1}{8}$ .

*Female.*—Forehead metallic green. Head purplish-bronze. Back golden-green. Uppertail-coverts grayish-black. Tail bluish-black with grayish-white tips on lateral and outermost rectrices. Chin rufous. Underside dark gray glossed with bronze. Undertail-coverts bluish margined with gray. Wings purplish. Bill black.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{3}{8}$ . Culmen,  $1\frac{1}{8}$ .

This new species was discovered in British Guiana by the late Mr. Henry Whitely. He collected the male on the Carimang River, and the female in Merume Mountains.

Types in Boucard's Museum.

## FAMILY XIV. PETASOPHORIDAE,

OR FAMILY OF VIOLET-EAR HUMMING BIRDS.

Size variable. The size of bill varies greatly. In the genera *Heliothrix* and *Schistes* it is cuneate, wide at base and gradually compressed towards the tip. In *Petasophora* the bill is slightly curved and feathered at the base, the nasal covers are also feathered, except along their lower edges. In the genera *Schistes* and *Heliothrix* the nasal covers are completely hidden. Maxilla and mandible more or less serrated. Wings long, reaching the end of tail. Tail metallic, slightly forked in *Petasophora*, cuneate in *Heliothrix*, and rounded in *Schistes*. Glittering blue or violet ear tufts. Sexes similar.

TYPE: *Petasophora*, Gray, List. Gen. Birds, 1840, p. 13.

Range.—Mexico to Bolivia, Brasilia, Venezuela, Guiana and Trinidad.

GENUS CXXVI. **Schistes**, Gould, Contr. Ornith., 1851, p. 140.

TYPE: *T. albogularis*, Gould.

Bill straight, wedge shaped at tip, shorter than the head. Wings long, reaching nearly the end of tail. Tail rounded, rectrices broad, outermost one shortest, lateral and median ones slightly and gradually longer. Tarsi partially clothed. Feet small, hind toe and nail shorter than middle toe and nail. Sexes similar in plumage.

*Habitat*.—Colombia and Ecuador.

425. SCHISTES GEOFFROYI, Bourc. and Muls., Ann. Soc. Agri. Lyon., 1843, t. iv., p. 37.

*Petasophora geoffroyi*, Gould, P.Z.S., 1847, p. 9.

*Polytmus geoffroyi*, Gray, Gen. Birds, vol. i., p. 108.

*Colibri geoffroyi*, Bon., Conspect. Gen. Av., 1850, vol. i., p. 69.

*Geoffroy's Wedge-bill*, Gould, Mon. Troch., vol. iv., p. 218.

*le Schiste de Geoffroy*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 155.

*Habitat*.—Colombia.

*Male*.—Crown, upper part of back, and wing-coverts, bronze-green, coppery on neck, on lower part of back, and on uppertail-coverts. Median rectrices bronze. Laterals bronze-green at base, with a broad subterminal bar dark bluish-green, then bronze-green margined with white at tips. Throat and a small spot on each side of forehead luminous green, and mingling with the green of the breast. A white spot behind the eye. Ear coverts dark brown. On each side of breast a tuft of metallic lilac-blue feathers, beneath which is a broad band of white. Underside shining green. White tuft behind the thighs. Undertail-coverts green, edged with gray. Wings purplish-brown. Bill black.

Total length,  $3\frac{5}{8}$  in. Wing,  $2\frac{1}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female, or male junior*.—Upperside like the male. Throat white, spotted with green. On each side of the breast a small spot of metallic bluish-green, and under it, a narrow band of white. Underside green, washed with white. Undertail-coverts pale green, margined with white. The tips of lateral and outermost rectrices are more broadly margined with white than in the males.

This species was dedicated by Messrs. Bourcier & Mulsant to Mr. Isidore Geoffroy Saint Hilaire.

426. *SCHISTES ALBOGULARIS junior*, Gould, Jard. Contr. Ornith., 1851, p. 140.

*Schistes personatus*, Gould, P.Z.S., 1860, p. 311.

*Schistes geoffroyi*, Selat, P.Z.S., 1860, p. 70.

*Masked Wedge-bill*, Gould, Mon. Troch., vol. iv. p. 219.

*White-throated Wedge-bill*, Gould Mon. Troch., vol. iv., p. 220.

*le Schiste masqué*, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 153.

*Habitat*.—Ecuador.

*Male*.—Forehead, face and throat glittering pale green, behind which is a patch of dark blue appearing black in certain lights. Upperside dark green, bronzy on back of forehead, on rump, and on upper part of uppertail-coverts. Median rectrices dark bronzy-green. Laterals light shining bronze-green at base, and tips crossed with a subterminal bar of dark bluish-green extending on inner webs, near the base. Spot behind the eye white. Ear coverts dark bronze-green. On each side of breast a tuft of metallic violet-blue feathers, reddish-purple in certain lights. Across the upper part of breast a broad crescentic white bar. Rest of underside dark green. Wings purplish-brown. Bill black,

Total length,  $4\frac{3}{4}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{2}$ .

*Female*.—Upperside dark green, bronzy on head, rump and uppertail-coverts. Tail like the male, with tips of lateral and outermost rectrices margined with white. Throat white. Underside green, washed with white.

This rare species was discovered at Pallatanga, Ecuador, by Mr. Fraser.

# GENUS CXXVII. *Heliothrix*, Boié, Isis., 1831, p. 547.

*Heliothrys*, Gray, List. Gen. Birds, 1840, p. 14.

TYPE.—*T. auritus*, Gmelin.

Bill slightly longer than the head, broad at base, narrowing rapidly towards the middle, the apical half greatly compressed laterally. Tips slender and sharply pointed. Feathers of forehead projecting on the culmen. Wings long, narrow, and pointed. Tail long and rounded at tips, outermost rectrices shortest, laterals and medians slightly and gradually longer.



In the female, the outermost rectrices are about half the length of the medians, the lateral next to the two medians of the same length as the latter. Uppertail-coverts very long in the male, it reaches two thirds of the length of tail. Tarsi clothed to the toes. Sexes similar in colour.

*Habitat*.—Central America, Colombia, Ecuador, Peru, Venezuela, Guiana, and Brazil.

427. *HELIOTHRIX AURITUS*, Gmel., Syst. Nat., 1788, vol. i., p. 493.

*Trochilus auritus*, Vieill., Nouv. Dict. Hist. Nat., 1817, t. vii., p. 368.

*Oiseau Mouche à oreilles*, Vieill., Nouv. Dict. Hist. Nat., 1817, t. vii., p. 368.

*Trochilus leucocrotaphus*, Vieill., Nouv. Dict. Hist. Nat., 1817, t. vii., p. 374.

*Ornismya aurita*, Less., Ois. Mou., 1829, t. x.-xi., p. 63.

*Heliothrix nigrotis*, Gray, Gen. Birds, vol. i., p. 115.

*Heliothrix longirostris*, Gould, P.Z.S., 1862, p. 124.

*Cayenne Fairy*, Gould, Mon. Troch., vol. iv., p. 213.

*l'Héliothrix à oreilles*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 238.

*Habitat*.—Brazil, Guiana, Venezuela, Colombia, Ecuador and Peru.

*Male*.—Head shining metallic green. Upperside dark shining green with a golden tinge on back. Uppertail-coverts shining green. Four middle rectrices bluish-black, remainder pure white. Lores and a line below the eye black, ending in metallic violet-blue. Below this line, is another extending from the gape which is luminous green. Entire underside pure white. Wings purplish black. Maxilla black. Mandible flesh colour at base, rest black.

Total length,  $4\frac{6}{8}$  in. Wing  $2\frac{5}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Upperside shining green with a bronze tinge on back. On the lateral rectrices there is an oblique bluish-black bar near the base. Line from gape passing under the eye bluish-black. Underside all white with pale brown spots on throat, rest like the male.

Total length,  $5\frac{1}{2}$  in. Wing,  $3\frac{6}{8}$ . Tail, 3. Culmen,  $\frac{5}{8}$ .

Type of Vieillot "Ex. Coll. Riocour" in my Collection.

My specimens from Colombia and Ecuador are very distinct in their colouration.

The male has the forehead luminous green, exactly of the same colour as the line from the gape to the ear. The neck, rump and undertail-coverts are shining green, golden in certain lights. The back and upperwing-coverts golden-green, luminous in certain lights. The remainder of plumage is like *H. auritus*. The female is also more golden on upper-side, and the throat more spotted than the specimens of Brazil and Guiana. If it should prove a distinct species, I propose the name of *Heliothrix columbianus* for it.

Total length of male,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Total length,  $5\frac{1}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

The young male has the head rufous and no violet-blue ear.

428. *HELIOTHRIX AURICULATUS*, Licht., Nordm. Erman. Reise, 1835, p. 5.

*Ornismya poucheti*, Less, Rev. Zool., 1840, p. 72.

*Heliothrix aurita*, Burm., Th. Bras., vol. ii., p. 336.

*Heliothrix phainolaema*, Gould, P.Z.S., 1855, p. 87.

*Brazilian Fairy*, Gould, Mon. Troch., vol. iv., p. 214.

*Green-throated Fairy*, Gould, Mon. Troch., vol. iv., p. 215.

*l'Héliothrix de Pouchet*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 340.

*Habitat*.—Brazil.

*Male*.—Head, chin, and sides of neck luminous golden-green. Upperside golden-green, shining brilliantly on neck. Four median rectrices bluish-black, remainder pure white. Lores and line behind the eye black, ending in metallic violet-blue. Underside white. Wings purplish-black. Maxilla black. Mandible flesh-colour at base, rest black.

Total length, 5 in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Like *H. auritus*, but more spotted on throat in my specimens.

I have two specimens, collected in Ecuador, by Buckley, which differs in the colouration and are smaller. The head,

chin and sides of neck are luminous green, not golden. The upperside shining green without the luminous golden tinge on neck. Rest like the above description.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{3}{8}$ . Culmen,  $\frac{5}{8}$ .

If it should prove a distinct species, I propose the name of *Heliothrix aequatorialis* for it.

429. HELIOTHRIX BARROTI, Bourc., Rev., Zool., 1843, p. 72.

*Heliothrix purpureiceps*, Gould, P.Z.S., 1855, p. 87.

*Columbian Fairy*, Gould, Mon. Troch., vol. iv., p. 217.

*Purple Crowned Fairy*, Gould, Mon. Troch., vol. iv., p. 216.

*l'Héliothrix de Barrot*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 243.

*Habitat*.—Colombia and Ecuador.

*Male*.—Top of head purplish-blue. Upperside shining green. Four median rectrices bluish-black, remainder pure white. Lores and line behind the eye black, ending with metallic purplish-blue. Line beneath luminous green. Under-side pure white. Wings purplish-black. Bill black, with base of mandible flesh colour.

Total length,  $4\frac{3}{4}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Like the female of *H. auritus*, but of a darker green on the lower part of back and uppertail-coverts.

Total length,  $4\frac{3}{4}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{6}{8}$ . Culmen,  $\frac{5}{8}$ .

This rare species was discovered in Colombia by Mr. Ferdinand Barrot, French Consul at Cartagena. It was dedicated to him by Messrs. Bourcier and Mulsant.

My unique specimen of this species was collected in Ecuador, by Buckley.

430. HELIOTHRIX VIOLIFRONS, Gould, Int. Troch., 1861, p. 122.

*Heliothrix violifrons*, Gould, Mon. Troch., vol. iv., p. 217.

*Veraguan Fairy*.

*l'Héliothrix de Veragua*.

*Habitat*.—Veragua.

*Male*.—Forehead beautiful violet-blue, nape, upper surface, uppertail-coverts, upper and underwing-coverts beautiful

golden-green; mark below the eye and ear-coverts black, terminating in a small tuft of blue; below the black line, a streak of rich luminous green. Wings purplish-black. Central tail feathers bluish-black. Lateral tail feathers, chin, throat, and under surface pure white. Bill black. Feet flesh colour.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Crown bronzy-green instead of violet-blue; ear-coverts and moustache blackish, the feathers of the throat are slightly speckled with brown, and the lateral tail-feathers banded near their base with purplish-black.

Total length, 5 in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

My specimens of this species were collected in Panama and Veragua. I consider this species quite distinct from *H. barroti*.

GENUS CXXVIII. **Pinarolaema**, Gould, Ann. and Mag., Nat. Hist., 1880, p. 480.

TYPE.—*P. buckleyi*, Gould.

Bill moderately decurved, culmen feathered at the base, nasal covers also feathered. Wings normal, no apparent auricular tufts. Tail forked, rectrices brown, glossed with purple, and with a subterminal bar of steel-blue.

431. PINAROLAEMA BUCKLEYI, Gould, Ann. and Mag. Nat. Hist., 1880, p. 480.

*Pinarolaema buckleyi*, Gould, Mon. Tro., Suppl., 1880, p. 8.

*Buckley's Humming Bird.*

*Sex?*—Brown with a purplish gloss on the back, uppertail-coverts brown, tail feathers brown glossed with purple and with a subterminal bar of steel blue; undersurface brown, apparently tinged with metallic olive-green; undertail-coverts whitish, washed with brown at the base, bill black.

Total length, 5 in. Wing, 2.95. Tail, 1.85. Bill, 1.2.

Having studied carefully the type in the British Museum, I have come to the conclusion that it is probably only a faded specimen of the well known *Petasophora anais*.

GENUS CXXIX. **Petasophora**, Gray, List., Gen. Birds,  
1840, p. 13

COLIBRI, Spix., Av. Bras., 1824, p. 80.

COELIGENA, Tschudi, Faun., Peru, 1844, p. 39.

LOPHORNIS, Tschudi, Faun., Peru, 1844, p. 39.

PRAXILLA, Reich., Aufz. der Colib., 1853, p. 13.

COLIBRI, Bon., Consp. Gen. Av., 1850, p. 69.

TELESIELLA, Reich., Aufz. der Colib., 1853, p. 13.

TELESILLA, Cab., Mus. Hein., 1860, t. iii, p. 27.

DELPHINELLA, Reich., Bonn., Ann. Scien. Nat., 1854, p. 137.

TYPE.—*T. serrirostris*, Vieillot.

Bill longer than the head, straight, and acutely pointed at tips. Feathers of forehead projecting on the culmen, and covering the nostrils. Wings long, pointed, reaching the end of tail, primaries slightly falcate. Tail broad, ample, and rounded, median rectrices shorter than the lateral and outermost ones, which are nearly of the same length. Feet large and strong. Tarsi clothed. Hind toe and nail shorter than middle toe and nail. Sexes similar in plumage.

*Habitat*.—Mexico, Central America, Venezuela, Trinidad, Guiana, Brazil, Colombia, Ecuador, Peru, and Bolivia.

432. PETASOPHORA SERRIROSTRIS, Vieillot, Nouv. Dict. Hist.  
Nat., 1817, vol. 7, p. 359.

*Colibri crispus*, Spix., Av. Bras., 1824, vol. i., p. 80.

*Grypus vieillotti*, Steph., Gen., Zool., t. xiv., p. 256.

*Trochilus petasophorus*, Pr. Max., Reis. Bras., t. ii., p. 191.

*Ornismya petasophora*, Less., Ois. Mou., 1829, p. 37.

*Polytmus serrirostris*, Gray, Gen. Birds, vol. i., p. 108.

*Petasophora gouldi*, Bon., Consp., Gen. Av., 1850, vol. i.,  
p. 69.

*Petasophora chalcotis*, Reich., Aufz. der Colib., 1853, p. 13.

*Petasophora crista*, Burm., Th. Bras., 1856, t. ii., p. 335.

*Brazilian Violet-ear*, Gould, Mon. Troch., vol. iv., p. 223.

*Le Pétaophore à sous caudales blanches*, Muls., Hist. Nat.  
Ois. Mou., 1875, t. ii., p. 164.

*Habitat*.—Brazil, Bolivia ?

*Male*.—Upperside shining green. Median rectrices bronze-green, bluish at tips. Laterals bronze-green, with a subterminal bluish-green bar. Ear-coverts purplish-amethyst. Chin, throat and breast bright metallic green, with bluish reflections near the ear-coverts, and on lower part of breast. Abdomen and flanks dull green, edged with grayish-white. Undertail coverts white. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{13}{16}$ .

*Female*.—Not quite so brilliantly coloured as the male, with the lower part of abdomen white, and a narrow white margin at tips of lateral rectrices, and white tips on outermost rectrices.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{13}{16}$ .

This species came abundantly years ago, from Brazil, but now it is seldom seen.

I have in my collection what I consider to be the type of Vieillot "Ex. Coll. Riocour." It is labelled *Oiseau mouche, bec en scie, Trochilus serrirostris, Vieill.*

433. PETASOPHORA CYANOTIS, Bourc., Rev. Zool., 1843, p. 101.

*Polytmus cyanotus*, Gray, Gen. Birds, vol. i., p. 108.

*Ornismya anais*, Less., Troch., 1831-1832, p. 151.

*Colibri cyanotis*, Bon., Consp. Gen. Av., 1850, vol. i., p. 69.

*Praxilla cyanotis*, Reich., Aufz. der Colib., 1853, p. 13.

*Little Violet-ear*, Gould, Mon. Troch., vol. iv., p. 228.

*le Pétasophore à oreilles d'azur*, Muls., Hist., Nat. Ois. Mou., 1875, t. ii., p. 151.

*Habitat*.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

*Male*.—Upperside shining green, bronzy on rump, and uppertail-coverts. Median rectrices, bronzy-green at base, then bronzy with a dark green subterminal bar. Laterals bronzy-green with dark bluish-green subterminal bar. Line behind the eye, and ear-coverts metallic dark blue. Chin, throat, and breast luminous green, each feather with a dark central green streak, giving a scaly appearance to these parts. Abdomen and flanks shining green. Vent white. Undertail-coverts green, margined with buff. Wings purplish-brown. Bill black.



Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside golden-green, remainder of plumage like the male, but less brilliant, and pale golden on abdomen and flanks.

Total length,  $3\frac{7}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

This species is very abundant in Colombia. My other specimens were collected in Venezuela, by Doctor Carlos Rojas, and in Ecuador and Bolivia, by Buckley.

434. PETASOPHORA CABANISI, Lawr., Ann. Lyc., Nat. Hist., N.Y., t. ix., p. 126.

*Petasophora cabanidis*, Heine, Journ. fur Ornith., 1863, p. 182.

*Cabanis little Violet-ear.*

*le Pétasophore de Cabanis.*

*Habitat*.—Costa Rica, Veragua.

*Male*.—Exactly like the preceding species, but the feathers of the chin and throat are much smaller, of a darker green, and with scarcely any sign of the central dark green streak. There is a bluish tinge on the breast, on the abdomen, and on all the tail feathers, which do not exist in the specimens of *P. cyanotis*. Undertail-coverts shining green, with a pale buff margin on the lowest only. It forms the passage between *P. cyanotis* and *P. thalassina*.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $\frac{7}{8}$ .

*Female*.—Like the male, but less brilliant.

I collected this species in May, 1877, on the Volcano of Irazu, Costa Rica, and I have also some specimens collected by Arcé, in Veragua.

435. PETASOPHORA THALASSINA, Sw. Phil. Mag., 1827, p. 441.

*Ornismya anais*, Less., Colib., 1831, p. 104.

*Ramphodon anais*, Less., Troch., 1831-32, p. 148.

*Polytmus thalassinus*, Gray, Gen. Birds, vol. i., p. 108.

*Colibri thalassinus*, Bon., Consp., Gen. Av., 1850, vol. i., p. 69.

*Praxilla thalassina*, Reich., Aufz. der Colib., 1853, p. 13.

*Mexican Violet-ear*, Gould, Mon. Troch., vol. iv., p. 227.

*le Petasophore d'un vert de mer*, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 149.

*Habitat*.—Mexico, and Guatemala.

*Male*.—Precisely like *P. cabanisi*, excepting that the blue line passing under the eyes starts from the chin, and the centre of abdomen which is shining dark blue, the undertail-coverts are margined with buff like *P. cyanotis*.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{9}{16}$ . Tail, 2. Culmen,  $\frac{6}{8}$ .

*Female*.—Like the male, but less brilliant.

I have collected this species in Mexico and in Guatemala.

436. PETASOPHORA ANAIS, Less., Troch., 1831, p. 146.

*Ramphodon anais*, Less., Troch., 1831, p. 146.

*Polytmus anais*, Gray, Gen. Birds, vol. i., p. 108.

*Trochilus thalassinus*, Jard., Hum. Birds, vol. ii., p. 47.

*Trochilus anais*, Jard., Hum. Birds, vol. ii., p. 47.

*Colibri anais*, Bon., Consp., Gen. Av., 1850, vol. i., p. 69.

*Praxilla anais*, Reich., Aufz. der Colib., 1853, p. 13.

*Petasophora iolata*, Gould, P.Z.S., 1847, p. 9.

*Polytmus iolata*, Gray, Gen. Birds, vol. i., p. 108.

*Colibri iolata*, Bon., Consp., Gen. Av., 1850, vol. i., p. 59.

*Petasophora rhodotis*, "Gould," Sauc. Mus. Hein.

*Paxilla iolata*, Reich., Aufz. der Colib., 1853, p. 13.

*Pinarolaema buckleyi*, Ann. and Mag., Nat. His., vol. x., p. 489.

*Columbian Violet-ear*, Gould, Mon. Troch., vol. iv., p. 224.

*Bolivian Violet-ear*, Gould, Mon. Troch., vol. iv., p. 225.

*le Pétasophore d'Anais*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 145.

*Habitat*.—Venezuela, Colombia, Ecuador, Peru and Bolivia.

*Male*. — Upperside shining or golden-green. Median rectrices bronze-green, laterals bluish-green with a subterminal dark bluish bar. Chin, line under the eye, ear coverts, and centre of the abdomen metallic blue. Breast luminous green, each feather with a dark central green streak, giving a scaly appearance to that part. Undertail-coverts shining

green margined with pale buff or grayish-white. Vent white. Wings purplish-brown. Bill black.

Total length, 5 in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Coloured precisely like the male, always golden on upperside, and slightly duller on underside, much smaller in size.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{7}{8}$ .

This species is very abundant in Venezuela, Colombia, and Ecuador. The males have been named by Gould *P. iolata*, and the name of *P. anaïs* has always been given to the females, but I am certain that they all belong to this species.

I have a very large series of both sexes from Venezuela. "Rojas," Ecuador and Bolivia, "Buckley," Peru, "Whitely," Colombia, "Salmon," and others.

One of my male specimens, from Colombia, has all the upperside and flanks brown, with green reflections, the tail feathers brownish-green, with the subterminal band dark blue, the undertail-coverts pale green, edged with white. The remainder of plumage is like the ordinary male of that species.

Although I consider also *Petasophora corruscaus*, Gould, and *rubrigularis*, Elliot, as accidental varieties of colouration of *P. anaïs*, I give below the descriptions of the two specimens in my collection, agreeing with the original descriptions of Messrs. Gould and Elliot.

437. PETASOPHORA CORRUSCANS, Gould, P.Z.S., 1846,  
p. 44.

*Cheequered Violet-ear*, Gould, Mon. Troch., vol. iv., p. 226.

Exactly like *P. anaïs*, with the centre of throat bright metallic rosy-bronze. Undertail-coverts buff, with bluish-green in centre.

Total length,  $4\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{7}{8}$ .

*Habitat*.—Colombia.

438. PETASOPHORA RUBRIGULARIS, Elliot, Ibis., 1876, p.  
405.

*Petasophora corruscaus*, Boucard, H. Bird, 1891, vol. i., p.  
25.

*Habitat*.—Colombia.

Exactly like *P. anais*, with the centre of throat metallic pink. Undertail-coverts green, edged with buff.

Total length,  $4\frac{6}{8}$  in. Wing, 3. Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{7}{8}$ .

\*439. PETASOPHORA GERMANA, Godm. and Salv., Ibis., 1884, p. 451.

*Guiana Violet-ear*, Gould, Mon. Troch., Suppl., 1886, p. 15.

*le Péta-sophore de Guiane.*

*Habitat*.—Roraima, British Guiana.

*P. anai* affinis et ejusdem staturae, sed gula multo magis caerulea; gutture quoque toto caerulescentiore et fronte caeruleo suffusa distinguenda.

Though the difference between the present bird and *P. anais*, of the Andes, is not great, we feel justified in separating them, the ranges of the two being doubtless broken by the low-lying lands of the Orinocco Valley. "Godm. and Salv."

Discovered by Mr. H. Whitely, in British Guiana. This species looks very much the same as *P. anais*.—(Edit).

440. PETASOPHORA DELPHINAE, Less., Rev. Zool., 1839, p. 44.

*Polytmus delphinae*, Gray, Gen. Birds, vol. i., p. 108.

*Colibri delphinae*, Bon., Consp., Gen. Av., 1850, p. 69.

*Telesiella delphinae*, Reich., Aufz. der Colib., 1853, p. 13.

*Telesilla delphinae*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 27.

*Brown Violet-ear*, Gould, Mon. Troch., vol. iv., p. 229.

*le Péta-sophore de Delphine*, Muls., Hist. Nat. Ois. Mou. 1875, t. ii., p. 158.

*Habitat*.—Guatemala, Veragua, Trinidad, Guiana, Colombia, Ecuador, Peru, and Bolivia.

*Male*.—Upperside dark olive-brown, greenish in specimens from British Guiana, and Bolivia. Uppertail-coverts dark purplish-bronze, margined with rufous. Tail bronzy-brown with a subterminal dark brown band. Ear-coverts purplish-blue. Throat metallic bronzy-green terminating with blue. Underside smoky-brown. Undertail-coverts rufous with bronzy-olive centre. Wings purplish-brown. Bill black.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $\frac{5}{8}$ .

*Female*.—Like the male, but paler in colouration. The specimens which I have from Merume Mountains, British Guiana, are darker than the specimens from Guatemala, Veragua, Trinidad, Colombia, and Ecuador.

## FAMILY XV. LAMPORNIDAE,

### OR FAMILY OF MANGO HUMMING-BIRDS.

Size moderately large. Bill serrated, stout, more or less curved, upturned in the genus *Avocettula*, feathered at base; nasal covers partially exposed. Wings long, reaching the end of tail. Tail rounded in the genus *Sericotes*, slightly forked in the genera *Hypuroptila* and *Eulampis*, forked in the genus *Lampornis*. Rectrices broad, brilliant metallic in the genus *Avocettula*; lateral rectrices metallic purple or reddish-purple in the other genera. Undertail-coverts normal, except in the genus *Hypuroptila*, in which they are large and full. Sexes unlike, except in the genera *Eulampis* and *Sericotes*.

TYPE: *Lampornis*, Swainson, Zool. Journ., 1827, vol. iii., p. 358.

*Range*.—Mexico to Ecuador, Brasilia, Guiana, Trinidad and West Indies.

GENUS CXXX. **Hypuroptila**, Gould, Mon. Troch., 1854, vol. ii., pl. 89.

CHALYBURA, Reich., Aufz. der Colib., 1854, p. 10.

METHON, Muls., Cat. Ois. Mou., 1875, p. 7.

TYPE: *T. buffoni*, Lesson.

Bill stout, straight, slightly curved, and acutely pointed at tips, longer than the head. Wings long, reaching the end of tail. Tail long, slightly forked. Median rectrices shortest, lateral and outermost ones very slightly and gradually longer. Undertail-coverts greatly developed, plume like. Sexes unlike.

*Habitat*.—Costa Rica, Veragua, Venezuela, Colombia, and Ecuador.

441. HYPUROPTILA BUFFONI, Less., Trochil, 1831, p. 34.

*Polytmus buffoni*, Gray, Gen. Birds, vol. i., p. 108.

*Lampornis buffoni*, Bon., Consp. Gen. Av., p. 72.

*Agyrtria buffoni*, Reich., Troch. Enum., 1855, p. 7.

*Hypuroptila buffoni*, Gould, Mon. Troch., vol. ii., p. 89.

*Buffon's Plumeteer*, Gould, Mon. Troch., vol. ii., p. 89.

*le Chalybure de Buffon*.

*Habitat*.—Colombia.

*Male*.—Upperside shining green, bronzy on neck and uppertail-coverts. Median rectrices dark bronze, laterals bluish-black margined with bronze on outer webs, outermost ones bluish-black. Underside metallic emerald-green. Vent and undertail-coverts pure white. Wings purple. Bill black.

Total length,  $4\frac{4}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside shining green, coppery on uppertail-coverts. Median rectrices bronze with the tips bluish-black, next one, bronze at base with a broad bluish-black tip, third bluish-black with bronze margin on outer webs and white tips, the two outermost ones bluish-black with white tips. Underside grayish-white, washed with green on sides of breast and flanks. Vent and undertail-coverts white. Wings purple. Bill black.

Total length, 4 in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen, 1.

This species was dedicated by Lesson to the eminent Naturalist, Buffon.

442. *HYPUROPTILA AENEICAUDA*, Lawr., Proceed., Acad. Nat. Scien., Phil., 1865, p. 38.

*Bronzy-tailed Plumeteer*.

*le Chalybure à queue cuivrée*.

*Habitat*.—Venezuela and Colombia.

*Male*.—This species is closely allied to the preceding one ; but can be easily distinguished by the colour of its tail, which has the median rectrices shining bronze, the laterals reddish-bronze on outer web of rectrices, and the colour of the underside, which is more golden.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen, 1.

*Female*.—Has also the median rectrices bright green-bronze, rest like the female of *C. buffoni*.

My specimens of this species were collected at Puerto-Cabello, Venezuela, and Valencia, Colombia.



443. HYPUROPTILA MELANORRHOA, Salv., P.Z.S., 1864, p. 585.

*Chalybura carnioli*, Lawr., Proceed. Acad., Nat. Scien., Philad. 1865, p. 39.

*Lampornis melanorrhoa*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 174.

*Black-vented Plumeteer*, Gould, Mon. Troch., Suppl., 1886, p. 14.

*le Chalybure à région anale noire.*

*Habitat*.—Costa Rica, Veragua.

*Male*.—Upperside shining green, bronzy on neck and rump. Uppertail-coverts and lower part of rump purplish-bronze. Tail bronzy-purple. Underside dark shining grass-green. Undertail-coverts purplish-bronze. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $4\frac{3}{4}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $\frac{7}{8}$ .

This is a very rare species. I have only one male from Costa Rica.

444. HYPUROPTILA ISAURAE, Gould, P.Z.S., 1861, p. 199.

*Lampornis isaurae*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 174.

*Isaure's Plumeteer.*

*le Chalybure d'Isaure.*

*Habitat*.—Veragua, Costa Rica.

*Male*.—Head greenish-bronze with purple reflections. Back shining green passing to purple on lower part of rump and uppertail-coverts. Tail dark bronze with purplish reflections. Throat, breast, and upper part of abdomen dark metallic bluish-green. Lower part of abdomen, and flanks dark gray washed with green. Undertail-coverts white. Wings purple. Maxilla black. Mandible flesh colour with black tip.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen, 1.

*Female*. Upperside shining green. Rump and tail shining bronze. Underside ashy. Vent white. Outermost and two of the lateral rectrices tipped with white. Wings brown. Maxilla black. Mandible flesh colour with black tip.

This is a rare species. It was dedicated by Gould to Mrs.

Isaure de Lafresnaye, wife of the well known Naturalist, of that name, Collaborator of Buffon.

445. HYPUROPTILA UROCHYSEA, Gould, P.Z.S., 1861, p. 198.

*Lampornis urochrysia*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 176.

*Golden-tailed Plumeteer*, Gould, Mon. Troch., vol. ii., p. 90.  
*la Chalybure à queue dorée.*

*Habitat*.—Panama.

*Male*.—Head and back dark-green, passing to a bronzy-hue on the wing, and uppertail-coverts. Wings purplish-brown. Tail rich golden-bronze, both above and beneath. Throat and breast grass-green. Abdomen bronzy-green. Thighs, vent, and undertail-coverts pure white. Upper mandible black. Lower mandible fleshy-red with black tip. Tarsi yellow or flesh-colour.

Total length,  $4\frac{3}{4}$  in. Wing,  $2\frac{3}{4}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{1}{8}$ .

"Gould, loc. cit."

This description corresponds exactly to that of *C. isaurae*, and I really believe that it is the same species. It was collected in Veragua, by Mr. Warzewiecz.

446. HYPUROPTILA INTERMEDIA, Ernst. and Hart. Novit., Zool., vol. i., 1894, p. 2.

*Chalybura intermedia*, Ernst. and Hart. Novit., Zool., vol. i., 1894, p. 2.

*Intermediate Plumeteer.*

*le Chalybure intermédiaire.*

*Habitat*.—Ecuador.

*Male*.—Chalybura supraviridis, gutture aureo-viridi, abdomine caerulescente vel beryllino, cauda chalybea, mandibula ad basin carnea.

Closely allied to *Chalybura caeruleiventris*

Types in Museum Rotschild.

I have not seen this species.—ED.

447. HYPUROPTILA CAERULEIVENTRIS, Reich., Aufz., der Colib., 1853, p. 10.

*Trochilus caeruleogaster*, Gould, P.Z.S., 1847, p. 96.

*Polytmus caeruleogaster*, Gray, Gen. Birds, vol. i., p. 108.

*Cyanochloris caeruleiventris*, Reich., Troch., Enum., 1855, p. 7.

*Aygrtria caeruleiventris*, Reich., Troch., Enum., 1855, p. 7.

*Chalybura caeruleiventris*, Cab. and Hein., Mus., Hein., 1860, t. iii., p. 20.

*Hypuroptila caeruleogaster*, Gould, Mon. Troch., vol. ii., p. 91.

*Lampornis caeruleiventris*, Bon., Rev. and Mag., Zool., 1864, p. 220.

*Blue-breasted Plumeteer*, Gould, Mon. Troch., vol. ii., p. 91.

*le Chalybure à ventre bleu.*

*Habitat*.—Colombia.

*Male*.—Forehead metallic golden-green, passing to golden on neck. Upperside golden-green, very dark in certain lights. Uppertail-coverts golden-green or purplish-golden. Tail steel-blue. Chin and throat metallic-green, or golden-green, passing to a bright dark blue on the breast and abdomen. Flanks shining green. Undertail-coverts, vent, and spot behind the flanks, pure white. Wings purple. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen, 1.

*Female*.—Upperside golden-green. Underside pale gray, washed with green. Tips of lateral rectrices white.

This species is rather rare.

I have one male specimen from Colombia so distinct in its colouration that a new species could be made with it; but I consider that it is only accidental. It is as follows:—Upperside dark green with a bluish tinge. Rectrices of tail steel-blue. Underside purplish-gray, washed all over with bluish-green feathers. Undertail coverts white. Wings purple. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen, 1.

GENUS CXXXI. **Lampornis**, Swainson, Zool. Journ., 1827, vol. iii., p. 358.

ANTHRACOTHORAX, Boié., Isis., 1831, p. 546.

SMARAGDITES, Boié., Isis., 1831, p. 546.

FLORESIA, Reich., Aufz. der Colib., 1853, p. 11.

HYPOPHANIA, Reich., Aufz. der Colib., 1853, p. 11.

MARGAROCHRYISIS, Reich., Aufz. der Colib., 1853, p. 11.

EUDOKA, Heine., Journ. fur Ornith., 1866, p. 179.

TYPE: *T. mango*, Linné.

Bill longer than the head, slightly curved. Wings long, reaching the end of tail. Tail forked. Outermost rectrices slightly shorter than the others, which are always metallic in colouration. Feet moderate, tarsi bare. Sexes unlike.

*Habitat*.—Mexico to Colombia, including the West Indies.

448. LAMPORNIS MANGO, Linné., Syst. Nat., 1766, p. 191.

*Mango Bird*, Albin. Birds, vol. iii., p. 45.

*Trochilus porphyryrus*, Shaw., Nat. Misc., vol. ix., pl. 333.

*Polytmus porphyryrus*, Gray, Gen. Birds, vol. i., p. 108.

*Lampornis floresi*, Bon., Rev. and Mag. Zool., 1854, p. 250.

*Floresia porphyryra*, Reich., Aufz. der Colib., 1853, p. 11.

*Anthracothorax porphyryrus*, Reich., Troch., Enum., 1855, p. 8.

*Eudoxa porphyryra*, Heine., Journ. fur Ornith., 1863, p. 179.

*Porphyry-Tailed Mango*, Gould, Mon. Troch., vol. ii., p. 81.

*le Lampornis porphyryre*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 164.

*Habitat*.—Jamaica.

*Male*.—Upperside shining dark olive-brown with a reddish tinge all over, but more accentuated on the neck. Median rectrices shining purplish-black. Laterals shining reddish-purple margined and tipped with blue. Throat and breast velvety-black, passing to brownish-black on abdomen and flanks, and washed on these parts with dark bronzy-green feathers. From the bill, under and behind the eye, is a broad band of metallic purple passing to brilliant reddish-purple on sides of neck. Undertail-coverts dark greenish-black. Anal region and spot on each side of flanks white. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{3}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen, 1.

*Female*.—Exactly like the male in colouration, excepting the chin, and throat, which are metallic purplish-blue with a green tinge, and the tips of lateral rectrices which are edged with grayish-white.

In this species, the female is brighter than the male.

449. LAMPORNIS DOMINICUS, Linné, Syst. Nat., 1766, p. 191.

*Trochilus margaritaceus*, Gmel., Syst., Nat., 1788, p. 490.

*Trochilus aurulentus*, Vieill., Ois., Dorés, 1802, pl. 12.

*Polytmus margaritaceus*, Gray, Gen. Birds, vol. i., p. 108.

*Lampornis margaritaceus*, Bon., Consp. Gen. Av., 1850, vol. i., p. 72.

*Margarochrysis aurulenta*, Reich., Aufz. der Colib., 1853, p. 11.

*Hypophania dominica*, Reich., Aufz. der Colib., 1853, p. 11.

*Eulampis aurulentus*, Bon., Rev. and Mag., Zool., 1854, p. 250.

*St. Domingo Mango*, Gould, Mon. Troch., vol. ii., p. 79.

*le Lampornis à collier d'or*, Muls., Hist. Nat. Ois. Mou., 1874, t. ii., p. 153.

*Habitat*.—San Domingo, Hayti, Porto Rico.

*Male*.—Upperside shining green, golden in some specimens. Undertail-coverts shining golden-green. Median rectrices purplish-bronze in some specimens, purplish-blue in others. Laterals purple-violet bordered with steel-purplish-blue. Throat metallic golden-green. Underside velvety-black. Flanks golden-green. Vent and spot on side of flanks white. Undertail-coverts dark purple with a bronze tinge. Wings purplish-brown. Bill black.

Total length, 5in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen,  $\frac{7}{8}$ .

*Female*.—Upperside golden-green. The median rectrices vary in colour as in the males. Laterals purplish-chestnut with a subterminal bluish-black bar and white tips. Underside gray. Sides of neck, breast, abdomen, and flanks bronze-green.

Total length,  $4\frac{6}{8}$ in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

I have a fine series of this species from Hayti, and Puerto Plata, "Santo Domingo."

- \*450. LAMPORNIS ELLIOTI, Cory. Auk., vol. vii., p. 374.

*Elliot's Mango.*

*le Lampornis d'Elliot.*

*Habitat.*—Anegada, West Indies.

*Male.*—Similar to *Lampornis dominicus*, but differs from it in being smaller, in having the wings and tail shorter, and in having the belly crissum, and the undertail-coverts much paler. Two central tail feathers golden-green.

Total length, 4<sup>in</sup>.-20. Wing, 2-45. Tail, 1-50. Bill, 0.87.

451. LAMPORNIS VIRGINALIS, Gould, Mon. Troch., vol. ii., p. 80.

*St. Thomas Mango*, Gould, Mon. Troch., vol. ii., p. 80.

*le Lampornis de Saint Thomas.*

*Habitat.*—St. Thomas.

*Male.*—Very closely allied to the preceding species, but more golden on upperside. Median rectrices purplish-bronze. Laterals purple-violet, edged and tipped with brownish-blue. Throat more golden than in *L. dominicus*.

Total length, 5in. Wing, 2<sup>7</sup>/<sub>8</sub>. Tail, 2. Culmen, <sup>7</sup>/<sub>8</sub>.

*Female.*—Upperside golden-green. Median rectrices shining reddish-bronze, next one same colour, darker near the tip which is white. Laterals reddish-bronze on outer webs, bluish-black on inner, tips white. Outermost ones brownish on outer web, chestnut on inner, with a shining dark blue sub-terminal bar and white tip. Underside grayish-white.

It is a rare species.

- \*452. LAMPORNIS CALOSOMA, Elliot, Ibis., 1872, p. 351.

*Chlorolampis chlorolaemus*, Elliot, Ann., Mag., Nat. Hist., 1870, vol. vi., p. 346.

*Elliot's Topaz*, Gould, Mon. Troch., Suppl., 1886, p. 12.

*Le Lampornis calosome*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 177.

*Habitat.*—Brazil.

*Male.*—Top of head and neck pale metallic silvery-green, in some lights purplish, a black band across the back, rest of upper parts dark green. Tail fiery copper-colour, feathers margined with blackish-purple; throat brilliant emerald-



green; under parts purplish-black; spot of white on the flanks; undertail-coverts chestnut. Bill black.

Total length, 4in. Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{5}{8}$ .

"Elliot's Synopsis of the Humming Birds, p. 41."

Type "Ex. Elliot's Collection" in the American Museum of Natural History, New York.

453. LAMPORNIS GRAMINEUS, Gmel., Syst., Nat., 1788, vol. i., p. 488.

*Trochilus maculatus*, Gmel., Syst., Nat., 1788, vol. i., p. 488.

*Trochilus pectoralis*, Lath., Ind. Ornith., 1790, vol. i., p. 306.

*Trochilus gularis*, Lath., Ind. Ornith., vol. i., p. 563.

*Trochilus marmoratus*, Vieill., Encycl., Méth., p. 567.

*Trochilus pectoralis*, Viell., Ois. Dorés, pl. 9.

*Polytmus dominicus*, Gray, Gen. Birds, vol. i., p. 108.

*Green-throated Mango*, Gould, Mon. Troch., vol. ii., p. 77.

*le Lampornis à cravate verte*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 149.

*Habitat*.—Guiana, Trinidad, Venezuela.

*Male*.—Head and neck shining green, remainder of upper plumage golden-green. Uppertail-coverts bright reddish golden-green. Median rectrices dark brown with bluish-black reflections. Laterals purple or purple-green, margined and tipped with shining steel-blue. Throat brilliant metallic grass-green. Centre of breast and abdomen black. Flanks golden-green or shining green. Undertail-coverts purplish-green. Vent and spot on each side of flanks white. Wings purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$ in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

*Female*.—Upperside golden-green. Underside white with the central portion of throat and breast greenish-black. Sides of breast and flanks golden-green. Median rectrices bronzy-green. Laterals chestnut with purple gloss, a subterminal bluish-black bar, and white tips.

*Young Male*.—Like the male with the sides of the throat chestnut or white with a margin of chestnut. Centre of

abdomen black, margined with white. Tail like that of the male.

This species is common in Guiana and in Trinidad.

I have two specimens Ex. Riocour's Collection. The two are labelled *Colibri Hausse-Col vert.* One is marked *Trochilus pectoralis Vieill.*, and I consider it, as the type of that author. It is from Cayenne. I have one male specimen from Trinidad with the tail of a bright greenish-blue underneath.

I have also another specimen golden above, with the chin, the throat, the centre of breast, and the abdomen black. Sides of throat and breast shining green. Abdomen brown. Flanks golden green. Undertail-coverts olive green.

454. LAMPORNIS NIGRICOLLIS, Vieillot, Nouv. Dict. Hist. Nat., 1817, vol. vii., p. 349.

*Trochilus quadricolor and atricapillus*, Vieill., Encycl. Méthod., p.p. 553-55.

*Le Plastron noir*, Vieill., Oiseaux dorés, p. 20.

*Trochilus fasciatus*, Shaw, Gen. Zool., vol viii., p. 303.

*Trochilus lazulus*, Less., Traité. d'Ornith., 1832, p. 290.

*Trochilus mango*, d'Orb and Lafr., Syn. Av., 1838, t. ii., p. 32.

*Polytmus mango*, Gray, Gen. Birds, vol. i., p. 107.

*Anthracothorax mango*, Reich., Aufz. der Colib., 1853, p. 11.

*Lampornis iridescent*, Gould, Int. Troch., 1861, p. 65.

*Lampornis violicauda*, Elliot, Ibis., 1872, p. 351.

*Le Mango*, Gould, Mon. Troch., vol. ii., p. 74.

*Le Lampornis Mango*, Muls., Hist. Nat. Ois. Mou., 1874, t. ii., p. 157.

*Habitat*.—Brazil, Guiana, Venezuela, Panama, Colombia and Ecuador.

*Male*.—Upperside golden-green in some specimens, in others dark shining green. Median rectrices dark bronzy-green in some specimens, in others dark bluish-purple with part of the external webs rufous. Laterals violet-red margined with bluish-purple. Underside black with a dark bluish tinge. A dark metallic blue line, with greenish reflections

along the sides of the neck and throat, and running from the bill to the flanks. Undertail-coverts violet-brown or green. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{1}{16}$ .

*Female*.—Upperside golden-green or dark green. Underside white with a black line from the throat to lower part of abdomen. Flanks golden-green or dark green. Undertail-coverts bronzy-green edged with white. Lateral rectrices tipped with white.

Same size as the male.

This species varies very much in its colouration, according to age and localities, but it is impossible to separate them, as these variations of plumage exist in specimens from the same locality.

I have in my collection one specimen from Brazil, which I have mentioned in the Proceedings of the Zoological Society, 1879,\* p. 178, as a variety of *nigricollis*, and described in the Humming Bird, vol. i., 1891, page 25, under the name of *L. violicauda*. It is as follows:—

*Male*.—Upperside purplish-black, lighter on the rump. Tail-coverts and median rectrices black. Laterals metallic reddish-purple with the edges and tips blackish-blue. Underside black, paler on flanks. A line of lustrous dark, with greenish tinge, from the bill to the flanks, on sides of breast. Undertail coverts purplish-black. Wings brownish-black. Feet and bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{1}{16}$ .

It is probably a melanism of *L. nigricollis*.

455. LAMPORNIS PREVOSTI, Less. Nat. Hist. Col., 1831, p. 87.

*Polytmus prevosti*, Gray, Gen. Birds, vol. i., p. 108.

*Autracothonax prevosti*, Reich. Aufz. der Colib., 1853, p. 11.

*Lampornis prevosti thalassinus*, Ridgw. Proc. U.S. Mus., t. viii., p. 573.

*Prevost's mango*, Gould, Mon. Troch., vol. ii., p. 75.

*Le Lampornis de Prévost*, Muls., Hist. Nat. Ois. Mou., 1876, vol. i., p. 161.

*Lampornis Hendersoni*, Cory Auk., 1887, p. 336.

*Habitat*.—Old Providence, West Indies, Mexico, and Central America.

*Male*.—Upperside shining golden-green. Median rectrices bronze-green with a reddish tinge. Laterals purplish-red or bright violet margined with brownish-black. Chin and throat black. Sides of throat, breast, and centre of abdomen shining bluish-green. Rest of underside golden-green. Undertail-coverts green with base and edges gray. Vent and spot on sides of flanks white. Wings purplish-brown. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

*Female*.—Upperside golden-green. Underside white. A black line on chin and throat passing to green on breast and abdomen. Flanks golden-green. Lateral rectrices purplish-red at base, passing to bluish-black and broadly tipped with white.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen, 1.

The young male of this species is like the female in colouration, with a rufous line on each side of chin, throat, and breast.

I have one specimen sent to me by Mr. Chas. Cory, of Boston, as *L. hendersoni*. It was collected by Mr. Henderson, at Old Providence, West Indies, but I cannot see any difference between that specimen and the Mexican ones.

I have collected this species in several parts of Mexico and Guatemala. Gaumer collected some for me, in Yucatan.

456. LAMPORNIS VERAGUENSIS, Gould, Mon. Troch., vol. ii., p. 76.

*Sericotes veraguensis*, Reich., Aufz. der Colib., 1853, p. 11.

*Anthracothorax veraguensis*, Reich., Troch., Enum., 1855, p. 9.

*Veraguan Mango*, Gould, Mon. Troch., vol. ii., p. 76.

*le Lampornis de Veragua*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 146.

*Habitat*.—Veragua and Panama.

*Male*.—It is closely allied to the preceding species, but can be easily distinguished by the chin and throat metallic-green, the breast and centre of abdomen shining blue. Undertail-coverts dark purple. Remainder of plumage like *L. prevosti*.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen, 1.

*Female*.—Like that of *L. prevosti*, excepting the lateral rectrices underneath which are bluish-green at base, then beautiful violet-purple, with a broad subterminal bar bluish-green, and white tips. Same size as the male.

I collected this species at Panama and Colon. I have also some specimens collected by Arcé in Veragua.

457. LAMPORNIS VIRIDIS, Audub and Vieillot, Ois. Dor., 1802, vol. i., p. 34.

*Chalybura viridis*, Reich., Aufz. der Colib., 1853, p. 10.

*Agyrtria viridis*, Reich., Troch. Enum., 1855, p. 7.

*Blue tailed Mango*, Gould, Mon. Troch., vol. ii., p. 78.

*le Lampornis vert*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 172.

*Habitat*.—Porto Rico.

*Male*.—Upperside shining bronzy-green showing a bluish tinge on back, rump, and uppertail-coverts. Tail steel-blue with greenish reflections. Underside shining green. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen, 1.

*Female*.—Upperside golden-green, brownish on head. Underside ashy white, tinged with green on the sides and flanks. Median rectrices bronze-green. Laterals shining dark blue on their inner webs, and golden brown on the outer with white tips. It is a rare species in the Collections.

GENUS CXXXII. **Avocettula**, Reich., Syst. Av. Nat., 1849, pl. 39.

AVOCETTINUS, Bon., Consp., Gen. Av., 1850, vol. i., p. 75.

STREBLORAMPHUS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 76.

TYPE: *T. recurvirostais*, Swainson.

Bill longer than the head, turned up at the point. Nostrils exposed. Wings long and pointed, projecting over the tail. Tail slightly rounded.

*Habitat*.—Guiana.

458. *AVOCETTULA RECURVIROSTRIS*, Swains., Zool. Illus., vol. ii., pl. 105.

*Mellisuga recurvirostris*, Steph. Shaw, Gen. Zool., vol. xiv., p. 248.

*Ornismya recurvirostris*, Less., Ois. Mou., 1829, p. 36.

*Campylopterus recurvirostris*, Sw., Class. Birds, 1836, vol. ii., p. 330.

*Hylocharis avocetta*, Gray, Gen. Birds, vol. i., p. 114.

*Avocettinus recurvirostris*, Bon., Conspectus, Gen. Av., 1850, vol. i., p. 75.

*Strebloramphus recurvirostris*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 76.

*Fiery-tailed Avocet*, Gould, Mon. Troch., vol. iii., p. 201.

*L'Avocettule à bec recourbé*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 263.

*Habitat*.—Guiana.

*Male*.—Upperside bronze-green. Uppertail-coverts shining green. Median rectrices dark bronze-green, passing to bluish-black at tips; laterals above, coppery-brown margined with bluish-black; beneath, metallic fiery-copper-red; outermost ones coppery-brown. Throat and breast shining emerald-green. Abdomen black. Flanks bronze-green. Undertail-coverts shining green. Bill black. Wings bluish-black.

Total length,  $3\frac{5}{8}$  in. Wing,  $3\frac{5}{8}$ . Tail,  $1\frac{2}{3}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Not known for certain.

It is a very rare species.

GENUS CXXXIII. **Eulampis**, Boié, Isis, 1831, p. 547.

*Culampis*, Less., Ind. Gen. and Syn. Gen. Troch., 1832, p. 7.

TYPE: *T. jugularis*, Linné.

Bill stout, short and curved, slightly longer than the head; feathers of forehead projecting on the culmen, nostrils partly covered. Wings long, reaching the end of tail, and brilliantly coloured in all their length. Tail moderate, slightly forked. Rectrices wide, terminating with a small acute point. Median rectrices shorter, the others gradually and slightly longer. Tarsi bare. Sexes alike.

*Habitat*.—Nevis, Martinica, Dominica, and Santa Lucia.



459. EULAMPIS JUGULARIS, Linné, Syst., Nat., 1766, p. 190.

*Trochilus auratus*, Gmél., Syst., Nat., 1788, vol. i., p. 487.

*Torchilus granatinus*, Lath. Ind. Ornith., 1790, vol. i., p. 305.

*Soui-manga prasinoptère*, Vieill., Ois. Dorés, 1802, vol. ii., p. 65.

*Trochilus grammacus*, Vieill., Ois. Dorés, 1802, vol. ii., p. 17.

*Culampis auratus*, Less., Ind. Gen. Syn. Gen. Troch., 1834, p. 7.

*Polytmus jugularis*, Gray, Gen. Birds, vol. i., p. 110.

*Topaza violacea*, Gray, Gen. Birds, vol. i., p. 110.

*Purple-breasted Carib*, Gould, Mon. Troch., vol. ii., p. 82.

*l'Eulampe grenat*, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 132.

*Habitat*.—Nevis, Martinica, Dominica, and Santa Lucia.

*Male*.—Upperside velvety-black. Upper and undertail-coverts metallic brilliant bluish-green. Tail dark shining blackish-green. Wings and their coverts glittering metallic dark green. Chin, throat, and breast shining vinous-purple. Abdomen, glossy black. Bill black.

Total length, 4½ in. Wing, 3. Tail, 1⅞. Culmen, ⅞.

*Female*.—Like the male.

I have one specimen with the primaries metallic dark green, secondaries and tertiaries dark golden-green.

This species is abundant in all the Lesser Antilles. It varies slightly in the colour of wings, upper and undertail coverts, as also in the form and size of bill. Some have the bill longer, and more or less curved than others. The female and young have the longer bills. It is the only species which has the wings and coverts so brilliantly coloured.

GENUS CXXXIV. **Sericotes**, Reich., Aufz. der Colib, 1853, p. 11.

TYPE : *T. holosericeus*, Linné.

Bill slender, longer than the head, the feathers of the forehead projecting on the culmen, nostrils partly covered.

Wings long, reaching the end of tail. Tail short and cuneate, each rectrice pointed at tip. Outermost smaller. Laterals slightly and gradually longer. Tarsi bare. Sexes alike.

*Habitat*.—St. Thomas, Martinica, Dominica, Grenada, Santa Lucia, Nevis.

460. SERICOTES HOLOSERICEUS, Linné, Syst. Nat., 1766, vol. i., p. 191.

*Polytmus holosericeus*, Gray, Gen. Birds, vol. i., p. 108.

*Eulampis holosericeus*, Gould, Mon. Troch., vol. ii., p. 83.

*Anthracothonax holosericeus*, Reich., Troch. Enum., 1855, p. 9.

*Lampornis holosericeus*, Cab. and Heine, Mus. Hein, 1860, t. iii., p. 19.

*Green breasted Cârîb*, Gould, Mon. Troch., vol. ii., p. 83.

*l'Eulampe vert et noir*, Muls., Nat. Ois. Mou., 1875, t. ii., p. 135.

*Habitat*.—St. Thomas, Martinica, Dominica, Santa Lucia, Nevis, St. Croix.

*Male*.—Upperside shining dark green, coppery on rump. Uppertail-coverts glittering green with bluish reflections. Tail dark shining blue. Throat metallic grass-green, yellowish-golden in some specimens, especially in those from Martinica. In the middle of the breast, bordering the green, is a small patch of bright blue feathers. Abdomen black. Flanks bronzy-green. Vent and a spot on each side of flanks white. Undertail-coverts glittering blue, edged with green. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Has less blue on the breast, is not quite so bright in colouration, and has the bill longer. This species is rather abundant in all the Lesser Antilles, and I think that when full, series of each island will be sent to Europe, it is possible that it will be necessary to separate them in two or three species.

461. SERICOTES CHLOROLAEMUS, Gould, Mon. Troch., vol. ii., p. 84.

*Anthracothonax chlorolaemus*, Reich., Troch. Enum., 1855, p. 9.

*Lampornis chlorolaemus*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 19.

*Eulampis longirostris*, Gould, Int. Troch., 1861, p. 69.

*Eulampis chlorlaemus*, Boucard, H. Bird, 1891, vol. i., p. 25.

*Grass-green and blue breasted Carib*, Gould, Mon. Troch., vol. ii., p. 84.

*le Caribe à gorge verte.*

*Habitat*.—Grenada.

*Male*.—Upperside shining dark green, with a reddish tinge on rump. Uppertail-coverts brilliant metallic green in centre, with bright blue feathers on each side. Tail bright dark purplish-blue. Throat dark metallic grass-green, followed with a broad band of brilliant dark purplish-blue. Abdomen and flanks glossy black, tinged with dark green. Undertail-coverts brilliant purplish-blue. Vent and a spot on side of flanks pure white. Wings purplish-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—The reddish tinge on lower part of back and rump is more apparent than in the male, the green of the throat is not so bright, the band of breast is not so extensive and more blue, and the bill is longer. It is the *E. longirostris*, of Gould.

I have a fine series of this rare species from Grenada, sent to me, by Mr. Wells.

GENUS CXXXV. **Florisuga**, Bon., Compt., Rend., 1850, p. 382.

*Orthorhynchus*, Ill. Prod., Syst., Mamm., p. 209.

*Lampornis*, Lesson, Tab. Esp. Ois. Mou., 1829, p. 23.

TYPE: *T. mellivorus*, Linné.

Bill strong, nearly straight, about the length of the head. Wings long, reaching the end of tail. Tail ample, slightly forked. Median rectrices shorter, lateral and outermost ones slightly and gradually longer. Uppertail-coverts reaching the tips of median rectrices. Sexes unlike.

*Habitat*.—Mexico, Guatemala, Veragua, Guiana, Venezuela, Trinidad, Brazil, Colombia, Ecuador, and Peru.

462. FLORISUGA MELLIVORA, L. Syst., Nat., 1766, vol. i., p. 193.

*Trochilus fimbriatus*, L. Syst., Nat., 1766, vol. i., p. 193.

*Oiseau Mouche dit la Jacobine ou à collier*, Vieill., Ois. Dor., p. 55.

*Mellisuga surinamensis*, Steph., Gen. Zool., vol. ix., p. 243.

*Trochilus flabellifera*, Gould, P.Z.S., 1846, p. 45.

*Topaza mellivora*, Gray, Gen. Birds, vol. i., p. 110.

*Jacobin*, Gould, Mon. Troch., vol. ii., p. 113.

*Great Jacobin*, Gould, Mon. Troch., vol. ii., p. 114.

*la Florisuge jacobine*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 179.

*Habitat*.—Guatemala, Veragua, Panama, Venezuela, Colombia, Tobago, Trinidad, Guiana, Brazil, Ecuador, and Peru.

*Male*.—Head, throat, and upper part of breast shining cobalt-blue. Across the neck, a broad cuneate-shaped white band; rest of upperside, including uppertail coverts, shining dark green in some specimens, bright, golden-green in some others. Breast and flanks shining-green or golden-green. Abdomen pure white. Undertail-coverts white. Tail pure white narrowly margined and tipped with purplish-brown. Wings purple-brown. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside golden-green, darker on the crown. Tail bronzy-green, with a sub-terminal bar of deep blue, slightly margined on laterals with gray or white, outermost blackish-blue with base of external web and tip white. Throat and upper part of breast white, spotted with dark brown. Sides of breast, abdomen and flanks golden-green. Centre of abdomen white. Undertail-coverts blackish-brown, tipped with white. Wings purplish-brown. Bill black.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

*Young Male*.—Coloured like the male, with a buff band on each side of the blue of the throat.

This is a very common species. I have large series from Guatemala, Chiriqui, Guiana, Trinidad, Tobago, Brazil, and Colombia, which varies in colouration, but otherwise are quite the same; but I have some others which varies so much in the colouration of the tail that I think a description is necessary.

*Male*.—From British Guiana. Upperside shining golden-green, excepting the head, which is greenish-blue with the centre of crown golden-bronze. White spot on neck. Median rectrices white at base, then greenish-bronze with bluish-black tips, rest white with a bluish-black spot at tip, narrowly margined with white. Throat dark blue with greenish reflections. Flanks golden-green, rest of underside pure white.

I propose the name of *F. guianensis* for this species, if it should prove distinct. I have three specimens, one from Demerara and two from River Atapuroni, B. Guiana, collected by H. Whitely.

*Male*.—From Ecuador and Pebas, Peru. Head, throat, and upperpart of breast dark greenish-blue, passing to shining green close to the white spot of neck. Rest of upperside shining green with golden reflections. Median rectrices white at base passing to bluish black, the next one white with bluish-black tip, the last three white with a very minute brown spot on tip of the one next to outermost one, this last one, pure white. Wings purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside bright golden-green, brownish on head. Uppertail-coverts shining green. Median rectrices and the three next ones bronze-green with bluish-black tips, and slightly margined with white, outermost ones bronze-green at base with broad subterminal bluish-black bar, margined on outer web with broad white tips. Chin and abdomen pure white, throat and upper part of breast pure white, margined with black. Side of neck, lower part of breast and flanks white, washed with golden-green. Under-tail-coverts gray at base, then dark bluish-black margined with white. Wings purplish-brown. Bill black.

Total length,  $4\frac{5}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

I propose the name of *F. peruviana* for this species, if it should prove distinct. I have four specimens of this species, one collected by Buckley in Ecuador, two collected by Garlepp in Ecuador, and one by Hauxwell, at Pebas, Peru, in 1866. I have also one specimen exactly like the preceding with the bill one inch long. I believe that it is what Gould described as *F. flabellifera*.

463. FLORISUGA SALLEI, Boucard, Hum. Bird, 1891, vol. i., p. 18.

*Sallé's Jacobin.*

*la Jacobine de Sallé.*

*Habitat.*—Mexico.

*Male.*—Head and neck dark shining green with bluish reflection in the centre of throat, and passing to golden on nape, beneath which is a broad band pure white. Rest of upperside, including tail coverts, shining bronzy-gold. Median rectrices white at base, passing to bluish-green; next one white, margined on external web with bluish-green and with bluish-black tip, the two next white, margined on external web and tipped with bluish-black, outermost one white with a small bluish-black spot at tip. Lower part of breast and flanks golden. Rest of underside pure white. Wings purplish-black. Bill black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female.*—Unknown.

Type unique in my Collection.

GENUS CXXXVI. **Melanotrochilus**, Deslongchamps, Ann., Mus. Caen., t. i., p. 225.

TYPE: *T. fuscus*, Vieillot.

Bill short, stout, slightly curved, about the length of the head. Wings longer than the tail. Tail ample, long, and slightly forked; rectrices broad and rounded, median shortest, lateral and outermost ones slightly and gradually longer. Uppertail-coverts short. Feet rather large. Tarsi clothed. Sexes similar.

*Habitat.*—Brazil, Colombia, and Ecuador.

464. MELANOTROCHILUS FUSCUS, Vieill., Nouv. Dict. Hist. Nat., 1817, vol. vii., p. 348.

*Trochilus ater*, Pr., Max. Reis. Braz., vol. i., p. 366.

*Trochilus niger*, Sw., Zool. Ill., vol. ii., pl. 82.

*Ornismya lugubris*, Less., Hist. Nat. Ois. Mou., 1829, t. i., p. 132.



*Trochilus atratus*, Licht., Doubl., p. 14.

*Trochilus leucopygius*, Spix., Av. Bras., 1824, t. i., pl. 81.

*Mellisuga atra*, Shaw, Gen. Zool., t. xiv., p. 243.

*Topaza atra*, Gray, Gen. Birds, vol. i., p. 110.

*Florisuga atra*, Bon., Consp., Gen. Av., vol. i., p. 74.

*Florisuga fusca*, Reich., Aufz. der Colib., 1853, p. 14.

*Pied Jacobin*, Gould, Mon. Troch., vol. ii., p. 115.

*la Florisuge demi denil*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 184.

*Habitat*.—Brazil, Colombia, and Ecuador.

*Male*.—Head, neck, and upper part of back black. Remainder of upperside dark bronzy-green, appearing black in certain lights. Uppertail-coverts dark bronzy-green, sometimes with reddish reflections. Median rectrices dark shining-green, purplish in some specimens. Laterals white tipped with purplish-brown. Underside black with shiny dark green reflections on throat in certain lights. Flanks white. Undertail-coverts purplish brown. Wings purple-brown. Upper and under wing-coverts greenish-bronze. Bill black.

Total length, 5in. Wing,  $3\frac{2}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female or Young Male*. — Upperside brownish-black. Uppertail-coverts purplish-black margined with rufous. Tail purplish excepting the rectrice near the outermost one, which is white on its external web, and the rest purplish, outermost one white. Underside sooty-brown with a dark reddish-rufous band on each side of throat. Undertail-coverts dark bronze, margined with white or rufous. Flanks white.

Total length,  $4\frac{1}{2}$ in. Wing, 2. Tail, 2. Culmen,  $\frac{6}{8}$ .

My specimens of this species were collected in Brazil, Colombia, and Ecuador.

My specimen from Colombia is much smaller, and has more white on flanks.

Its size is as follows :—Total length,  $4\frac{3}{8}$ in. Wing, 3. Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{6}{8}$ .

## FAMILY XVI. OREOTROCHILIDAE.

OR FAMILY OF HILL STAR HUMMING BIRDS.

Size large. Bill slender, short, and curved. Sheath of both maxilla and mandible smooth. Nasal covers completely hidden. Wings narrow and long. Rectrices very narrow. Throat and crown metallic in the males of the genus *Oreotrochilus*. In the new genus, *Alcidius*, the throat only is metallic. Female dull.

TYPE: *Oreotrochilus*, Gould, P.Z.S., 1847, p. 10.

. Range.—Ecuador.

GENUS CXXXVII. *Oreotrochilus*, Gould, P.Z.S., 1847, p. 10.

OREOTROCHILUS, Gould, Int. Trochilidae, p. 62.

OREOTROCHILUS, Cab. and Hein, Mus. Hein., 1860, t. iii., p. 15.

TYPE: *O. chimborazo*, Delattre and Bourcier.

Bill almost cylindrical and slightly incurved, about the length of the head. Wings rather long and powerful. Tail large, the feathers narrow and rigid; rectrices of the same length, excepting the outermost ones, which are slightly longer. Feet strong. Tarsi clothed, hind toe and nail about the same length as the middle toe and nail. Throat and head luminous in males, females unadorned.

*Habitat*.—Ecuador.

465. OREOTROCHILUS CHIMBORAZO, Delattre and Bourc., Rev. Zool., 1846, p. 305.

*Chimborazian Hill Star*, Gould, Mon. Troch., vol. ii., p. 68.

*l'Orotrochile du Chimborazo*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 167.

*Habitat*.—Volcano of Chimborazo, Ecuador.

*Male*.—Head glittering metallic dark-blue with violet reflections. Upperside olive-bronzy-green, each feather on rump and uppertail-coverts margined with gray. Median rectrices dark bronze-green, laterals white, margined on outer webs with brownish-black, outermost ones white at base, rest

greenish-black. Throat metallic violet-blue, encircled with a narrow band of black. A triangular large spot of brilliant metallic green in the centre of the lower part of throat, just above the black band. In one of my specimens, there is a narrow metallic blue band under the green, and another black band under the blue one. Breast, abdomen, and flanks pure white—the latter sparingly spotted with olive-green feathers. In the centre of the abdomen a line of brownish-black. Undertail-coverts pale olive-green. Wings purplish-brown. Bill black.

Total length,  $5\frac{1}{4}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Upperside olive-green. Median rectrices dark bronzy-green, next one of the same colour sometimes with white tips, laterals white at base, passing to greenish-brown, and with white tips. Throat white, minutely spotted with brown-olive, rest of underside pale olive-brown margined with white. Same size as the male.

For a long time, this species, discovered by Delattre, on the Volcano of Chimborazo, has been very rare in the collections; but in 1885, the well-known collector, Henry Buckley, brought to England a large series of this species, and of *O. pichincha*.

All my specimens were collected by him.

466. OREOTROCHILUS PICHINCHA, Bourc. and Muls., Ann. Acad. Sc., Lyon., 1849, p. 427.

*Oreotrochilus jamesoni*, Jard., Contr. Ornith., 1849, p. 42.

*Pinchinchian Hill Star*, Gould, Mon. Troch., vol. ii., p. 69.

*l'Orotrochile du Pichincha*, Muls., Hist. Nat. Ois. Mon., 1876, t. ii., p. 162.

*Habitat*.—Volcano of Pichincha, Ecuador.

*Male*.—Exactly like the preceding species, without any green on the throat.

Total length,  $5\frac{1}{4}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Like that of *O. Chimborazo*, slightly whiter on throat, and more minutely spotted. Without knowing the exact localities where they come from, it is nearly impossible to distinguish the females of one species from another.

This fine species was discovered in Ecuador, by the late Bourcier, who was then, French Consul in Quito.

All my specimens were collected by Buckley.

GENUS CXXXVIII. **Alcidius**, Nov. Gen.

OREOTROCHILUS, Gould, P.Z.S., 1847, p. 10.

TYPE: *O. estellae*, d'Orbigny.

Bill short, slender, slightly curved, about the length of the head. Throat brightly coloured in males. Wings narrow, long, reaching nearly the end of tail. Tail pointed, feathers narrow and rigid, outermost shortest, laterals slightly and gradually longer, medians of the same length as the laterals next to it, or slightly longer. Feet strong, the hind toe and nail about equal in length to the middle toe and nail. Tarsi clothed. Sexes unlike in plumage.

*Habitat*.—Peru, Bolivia and Chili.

467. **ALCIDIVS ESTELLAE**, D'Orb and Lafr., Syn. Av., 1838, p. 32.

*Orthorhynchus estella*, d'Orb, Voy., Amer., Mérid., 1835-44, t. 4, p. 376.

*Trochilus ceciliae*, Less., Rev. Zool., 1843, p. 43.

*Oreotrochilus estellae*, Gould, Mon. Troch., vol. ii., p. 70.

*Estella's Hill Star*, Gould, Mon. Troch., vol. ii., p. 70.

*Oreotrochile d'Estelle*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 170.

*Habitat*.—Bolivia and Peru.

*Male*.—Upperside olive-green, passing to bronze-green on the uppertail-coverts. Median rectrices dark bronzy-green, remainder white, bordered and tipped with brown. Throat brilliant grass-green, bordered beneath by a line of bluish-black. Breast and abdomen white. In the centre of the later a line of deep chestnut. Undertail-coverts and flanks olive-brown. Wings brown, with purplish reflections. Bill black.

Total length, 5 in. Wing,  $2\frac{6}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Differs from the male in having the throat spotted with brown, the underside rufous-brown, and the lateral tail feathers white, crossed with a band of green in the centre.

It is a very rare species.

I have made a new genus with this species and the four following ones, because they are quite distinct, in generical

forms, especially in the form of the tail, and in the metallic colouring of head and throat, from the two well-known species, *O. pichincha* and *O. chimborazo*. For these two last species, I have retained the generic name of *Oreotrochilus*, Gould considering that it was more proper to make a new genus, in honour of D'Orbigny, with the species discovered by this eminent Naturalist. I hope that all my scientific colleagues will agree with me in this, and will adopt it.

468. *ALCIDIVS BOLIVIANUS*, Boucard, H. Bird, 1893, vol. iii., p. 7.

*Oreotrochilus bolivianus*, Boucard, H. Bird, 1893, vol. iii., p. 7.

*Bolivian Hill Star.*

*l'Alcide de Bolivie.*

*Habitat.*—Bolivia.

*Male.*—Upperside olive-brown passing to shining reddish-bronze on uppertail-coverts. Median rectrices dark shining bronze-green, laterals white edged outwardly with dark brown, outermost ones white at base internally, and the remainder dark greenish-black. Throat glittering green, with an imperceptible dark blue margin at base. Breast and abdomen grayish-white passing to grayish-buff on flanks. A narrow line of greenish-blue in the middle of the abdomen. Undertail-coverts grayish-brown. Wings brown externally, and purplish internally. Bill black and curved.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen, 1.

*Female.*—Upperside like that of the male. Lateral and outermost rectrices with white tips. Underside grayish-brown with minute green spots on throat. This new species is closely allied to *O. leucopleurus*, from which it differs by the band of the throat which is scarcely perceptible, the line in the centre of abdomen which is very narrow, and greenish-blue, and the tail and uppertail-coverts differently coloured. It forms the passage between *O. estellae* and *O. leucopleurus*.

Discovered by Buckley, in Bolivia. Types in Boucard's Museum.

469. *ALCIDIVS LEUCOPLEVRVS*, Gould, P.Z.S., 1847, p. 10.

*Oreotrochilus leucopleurus*, Gould, Mon. Troch., vol. ii., p. 71.

*White-Sided Hill Star*, Gould, Mon. Troch., vol. ii., p. 71.

*l'Orotrochile à flancs blancs*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 172.

*Habitat*.—Chili.

*Male*.—Upperside olive-brown with a bronze tinge in some specimens and a coppery tinge in others. Uppertail-coverts in some bronzy-green, in others coppery-bronze. Median rectrices dark green-bronze in some specimens, in others brownish-black with greenish reflections, laterals white with a slight margin on outer web and dark brown tips, outermost one white at base passing to purplish-black. Throat brilliant golden-green, beneath which is a narrow band of metallic bluish-black feathers. Breast, upper part of abdomen and flanks pure white. Centre and lower part of abdomen bluish-black. Undertail-coverts olive-green. Wings purplish-brown. Bill black.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Like the male, but buffy-white underneath sparingly glossed with pale olive-green on sides of breast. Throat white minutely spotten with greenish-blue. Lateral and outermost rectrices white, crossed with a subterminal green band, and with white tips.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{1}{8}$ . Culmen,  $\frac{6}{8}$ .

My specimens of both sexes of this species were collected in Chili, by Mr. E. Reed. It was first discovered in the Andes of Acon.

\*470. *ALCIDIVS MELANOGASTER*, Gould, P.Z.S., 1847, p. 10.

*Oreotrochilus melanogaster*, Gould, Mon. Troch., vol. ii., p. 72.

*Black-breasted Hill Star*, Gould, Mon. Troch., vol. ii., p. 72.

*l'Orotrochile à ventre noir*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 176.

*Habitat*.—Peru.



*Male*.—Upper-parts olive-brown, throat metallic grass-green, under-parts bluish-black. Uppertail-coverts shining green, under-coverts olive-brown, margined with buff. Tail steel-blue, with green reflections. Bill and feet black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{8}$ . Tail, 2. Culmen,  $\frac{3}{4}$ .

*Female*.—Upper-parts light brown, with a greenish lustre. Uppertail-coverts shining green. Throat white, unspotted. Under-parts brownish-white, tinged with buff. Undertail-coverts buffy-brown. Tail shining green, all the lateral feathers tipped with white.

“Elliot’s Synopsis of the Humming Birds, p. 36.”

This rare species is one of my *desirata*. The specimens from which Mr. Elliot made his descriptions were collected in Peru, by Mr. Jelsky.

471. *ALCIDIOUS ADELAE*, d’Orb. and Lafr., Syn. Av., 1838, p. 33.

*Orthorhynchus adda*, d’Orb., Voy. Amer., Mérid., vol. iv., p. 377.

*Oreotrochilus adelae*, Gould, Mon. Troch., vol. ii., p. 73.

*Adela’s Hill Star*, Gould, Mon. Troch., vol. ii., p. 73.

*l’Orotrochile d’Adèle*, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 175.

*Habitat*.—Bolivia.

*Male*.—Upperside olive-brown. Tail cuneate. Median rectrices dark brown, remainder pale buff, margined and tipped with olive-brown. Throat metallic golden-green, beneath which is a narrow band of black. Underside deep chestnut with a central line, and the lower part of abdomen black. Vent buff. Undertail-coverts olive-brown, margined with buff. Wings brown, with a bronzy-green gloss. Bill and feet black.

Total length, 5 in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{1}{8}$ . Culmen, 1.

*Female*.—Differs by having the throat white, spotted with olive-brown, underside wholly rufous, and the lateral tail feathers buff, with a subterminal black bar, and tipped with white on the inner webs.

This is a very rare species. I have only one fine male specimen, collected in Bolivia, by Buckley. It was discovered in the neighbourhoods of Chuquisaca, Bolivia, by Mr. Alcide d’Orbigny.

## FAMILY XVII. CAMPYLOPTERIDAE.

OR FAMILY OF SABRE WING HUMMING BIRDS.

Size large. Bill stout, nearly straight or curved. Sheath of both maxilla and mandible smooth. Nasal covers partly exposed. Wings short, shafts of the outer primaries swollen. Tail cuneate or rounded, excepting in the Genus *Eupetomena* in which it is very developed and forked. Sexes sometimes alike, and at other times dissimilar.

TYPE: *Campylopterus*, Swainson, Zool. Journ., 1826, p. 358.

Range.—Mexico, Guatemala, Costa Rica, Colombia, Ecuador, Peru, West Indies, Guiana and Brazilia.

GENUS CXXXIX. **Sphenoproctus**, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 11.

PAMPA, Reich., Aufz. der Col., 1853, p. 11.

TYPE: *O. pampa*, Lesson.

Bill nearly straight, longer than the head. Nostrils covered by a membrane. Wings long, shafts of three primaries in the male broad and flattened, the first primary falcate. Tail cuneate. Outermost rectrices smaller, all the others gradually longer. Sexes alike.

Habitat.—Mexico and Guatemala.

472. SPHENOPROCTUS PAMPA, Less., Ois. Mou. Suppl., 1829, p. 127.

*Polytmus pampa*, Gray, Gen. Birds, vol. i., p. 107.

*Pampa campyloptera*, Reich., Aufz. der Col., 1853, p. 11.

*Campylopterus pampa*, Gould, Mon. Troch., vol. ii., p. 43.

*Wedge-tailed Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 43.

*Le Campyloptère pampa*, Muls., Hist Nat. Ois. Mou., 1874, vol. i., p. 115.

Habitat.—Guatemala.

Male.—Top of head and occiput metallic blue with purplish reflections. Upperside shining green, bluish on uppertail-coverts. Median rectrices bronze-green, brownish at tips, next one of the same colour with broad brownish-black tip,

laterals bronze at base, remainder bluish-black. Outermost ones brownish-black, with grayish rufous on the external web reaching nearly the tip. Underside pale gray, nearly white on lower part of abdomen. Line above the eye pale rufous. Spot behind the eye white. Wings purplish-brown. Bill black.

Total length,  $5\frac{2}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Like the male, but smaller, the two outermost rectrices broadly tipped with gray, the medians not so long as in the male. Underside grayish-white, paler than in the male.

Total length,  $4\frac{3}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{7}{8}$ .

All my specimens of this species are from Guatemala and Yucatan, Mexico.

473. SPHENOPROCTUS CURVIPENNIS, Licht. Preiz. Verz. Mex. Thier., 1830, No. 32.

*Sphenoproctus pampa*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 11.

*Mexican Sabre-wing*, Gould, Mon. Troch. Suppl., 1886, p. 5.

*le Campyloptère du Mexique*.

*Habitat*.—Mexico.

*Male*.—The only differences which I can see between this species and the preceding one is the colour of the upperside which is more golden, and the underside whiter. I doubt that they are sufficient to consider it as a distinct species.

I collected my specimens in Mexico. It is one of the species found in the forests, which I could easily recognise by its song.

GENUS CXL. **Eupetomena**, Gould, Mon. Troch., 1853, p. 6.

PROGNORNIS, Reich., Aufz. der Colib., 1853, p. 11.

TYPE: *T. macrourus*, Gould.

Bill stout, short, slightly longer than the head and very slightly curved. Wings long, shaft of first and second primaries in the male broad and flattened. Tail very long, deeply forked, median rectrices broad and short, the two next

ones gradually longer, the fourth much longer than the third, and the outermost one much longer, turning slightly outward at the tip in some specimens. Sexes alike.

*Habitat*.—Guiana, Brazil, Peru.

474. EUPETOMENA MACROURA, Gmel., Syst., Nat., 1788, vol. i., p. 487.

*Trochilus forcipatus*, Lath., Ind. Ornith., 1790, vol. i., p. 304.

*Ornismya hirundinacea*, Less., Ois. Mou., p. 98.

*Polytmus macrourus*, Gray, Gen. Birds, vol. i., p. 107.

*Prognornis macroura*, Reich., Aufz. der Colib., 1853, p. 11.

*Eupetomena hirundinacea*, Gould, Mon. Troch., vol. ii., p. 42.

*Swallow Tail*, Gould, Mon., Troch., vol. ii., p. 42.

*l'Eupétomène hirondelle*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 112.

*Habitat*.—Brazil.

*Male*.—Head and neck metallic prussian-blue. Upperside dark shining green passing to bronze on upper parts of upper-tail-coverts; these are dark steel-blue like the tail. Chin, throat and breast metallic prussian-blue. Rest of underside dark shining green. Tufts of feathers of anal region and on sides of flank pure white. Undertail-coverts dark steel-blue. Wings purplish-brown. Bill black.

Total length, 7in. Wing, 3. Tail, 4. Culmen,  $\frac{7}{8}$ .

*Female*.—Slightly paler in colour, and the tail shorter.

Total length,  $5\frac{5}{8}$ in. Wing,  $2\frac{6}{8}$ . Tail, 3. Culmen,  $\frac{7}{8}$ .

Common in Brazil.

475. EUPETOMENA HIRUNDO, Gould, Ann. and Mag. Nat. Hist., 1875.

*Western Swallow Tail*, Gould, Mon. Troch. Suppl., 1886, p. 4.

*l'Eupétomène hirondelle du Pérou*.

*Habitat*.—Peru.

*Male*.—Exactly like the preceding species in colouration and size, with the lower part of breast dark shining greenish-blue, abdomen and flanks lighter green, and head dark greenish blue.

Total length, 6 $\frac{1}{2}$ in. Wing, 3 $\frac{1}{2}$ . Tail, 4. Culmen,  $\frac{7}{8}$ .

This rare species was discovered by Mr. H. Whitely, at Huairo, Valley of Santa Anna, Peru.

GENUS CXLI. **Aphantochroa**, Gould, Mon. Troch., 1852, vol. ii., p. 54.

AGAPETA, Heine, Journ. fur Ornith., 1863, p. 178.

PLACOPHORUS, Muls., Cat. Ois. Mou., 1873, p. 6.

TYPE: *T. cirrhochloris*, Vieillot.

Bill stout, about the length of the head, very slightly arched. Wings broad, long, reaching the end of tail. Tail square, the rectrices of the same length and pointed at tips. Tarsi clothed. Hind toe short. Sexes alike.

*Habitat*.—Guiana, Brazil, Ecuador?

476. APHANTOCHROA CIRROCHLORIS, Vieill., Nouv. Dict., Hist. Nat., t. 23, p. 430.

*Ornismya simplex*, Less., Ois. Mou., 1829, p. 119.

*Polytmus cirrochloris*, Gray, Gen. Birds, vol. i., p. 107.

*Trochilus campylostylus*, Licht., Verzeich Doubl., p. 14.

*Campylopterus cirrochloris*, Bon., Consp. Gen. Av., 1850, vol i, p. 71.

*Sombre Humming Bird*, Gould, Mon. Troch., vol. ii., p. 54.

*l'Aphantochroé cirrochlore*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 140.

*Habitat*.—Brazil.

*Male*.—Upperside dark bronze-green. Median rectrices dark bronze-green, next one darker with reddish tinge at tip, the rest bronze at base changing to dark brown. Underside grayish-brown washed with pale green on throat, breast, and flanks. Undertail-coverts dark brown, edged with white. Wings purplish-brown. Bill black.

Total length, 4 $\frac{1}{2}$ in. Wing, 2 $\frac{5}{8}$ . Tail, 1 $\frac{5}{8}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Exactly like the male but slightly smaller.

\*477. APHANTOCHROA GULARIS, Gould, P.Z.S., 1860, p. 310.

*Puce Throated Humming Bird*, Gould, Mon. Troch., vol. ii., p. 55.

*l'Aphantochroé à gorgerette*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 142.

*Habitat*.—Ecuador.

*Male*.—Very much like *A. cirrochloris* excepting a metallic lilac spot on the throat and the green colour of the general plumage. I have examined the type of Gould, which is now in the British Museum, and my impression was that it is a poor specimen of *Hypuroptila buffoni*, to which the natives have stuck some purple feathers of *Clytolaema rubinoides* on the throat.

GENUS CXLII. **Phaeochroa**, Gould, Int. Troch., 1861, p. 55.

TYPE: *P. cuvieri*, Del. and Bourc., Rev. Zool., 1846, p. 310.

Bill stout and straight, slightly longer than the head and with the tips acutely pointed. Wings long nearly reaching the end of tail, shafts of the two primaries broad and flattened in the middle. Tail rounded, outermost rectrices shortest, the others very slightly and gradually longer. Sexes alike.

*Range*.—Guatemala to Colombia.

478. PHAEOCHROA CUVIERI, Delatt. and Bourc., Rev. Zool., 1846, p. 310.

*Aphantochroa cuvieri*, Bon., Rev. and Mag. Zool., 1854, p. 250.

*Phaeochroa cuvieri*, Gould, Int. Troch., 1861, p. 55.

*Aphantochroa roberti*, Salv., P.Z.S., 1861, p. 203.

*Campylopterus roberti*, Gould, Mon. Troch., vol. ii., p. 53.

*Phaeochroa roberti*, Gould, Int. Troch., 1861, p. 55.

*Cuvier's Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 52.

*Owen's Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 53.

*l'Aphantocroé de Cuvier*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 137.

*le Campyloptère de Cuvier*.



*Habitat*.—Guatemala to Colombia.

*Male*.—Upperside shining green. Four median rectrices shining greenish-bronze, next one shining bronze-green with dark brownish spot on inner web near the inner tip which is white, last lateral and outermost ones shining bronzy-green with a subterminal blackish bar and broadly tipped with white. Underside dull bronze-green passing to gray, with rufous tinge on abdomen and flanks. Undertail-coverts bronzy-green fringed with white. Wings purplish-brown. Maxilla black. Mandible flesh colour for a little more than half its length, rest black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{7}{8}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Exactly like the male.

The differences between *C. roberti*, and this species are so slight, that I cannot see how they can be separated.

In one specimen which I have from Guatemala, the base of the mandible is flesh colour, and the lateral rectrices have a broader blackish subterminal bar, but the base is also bronzy-green.

It is a rare species.

I have collected my specimens in Guatemala, Costa Rica, and Colon. I have also one specimen collected by Arcé, at Chiriqui.

The type of this species was discovered by Delattre, in Guatemala, and it was dedicated by him and Bourcier, to the eminent French Naturalist, Cuvier.

GENUS CXLIII. **Campylopterus**, Swainson, Zool. Journ., 1826, p. 358.

POLYTMUS, Gray, Gen. Birds, 1848.

PLATYSTYLOPTERUS, Reich., Aufz. der Colib., 1853, p. 11.

LOXOPTERUS, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 13.

TYPE: *T. largipennis*, Bodd.

Bill long and curved, broad and flat at base. Wings ample, shafts of primaries in the male broad and flat on their basal half. Tail ample, rounded; rectrices broad, outermost ones shortest, the next one slightly longer, the rest of same length. Size large, female smaller. Sexes alike in plumage.

*Habitat*.—Guatemala, Guiana, Ecuador, Peru.

479. *CAMPYLOPTERUS LARGIPENNIS*, Bodd., Pl. Enl. d'Aubent., 1783, pl. 672.

*Trochilus cinereus*, Gmel., Syst. Nat., 1788, p. 490.

*Trochilus campylopterus*, Gmel., Syst. Nat., 1788, vol. i., p. 499.

*Trochilus latipennis*, Lath., Ind. Ornith., vol. i., p. 310.

*Ornismya latipennis*, Less., Ois. Mou., 1829, p. 121.

*Polytmus largipennis*, Gray, Gen. Birds, vol. i., p. 107.

*Broad-shafted Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 48.

*Le Campyloptère largipenne*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 120.

*Habitat*.—Guiana.

*Male*.—Upperside shining grass-green. Median rectrices dark bronze-green, next one bronze for about half its length, then bluish-black and slightly margined with white at tips, the others bronze at base, then bluish-black to half their length, the rest pure white. Underside dark ashy-gray, sparingly washed with green on sides of neck, breast and flanks. Wings shining purplish-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length,  $5\frac{3}{8}$  in. Wing,  $3\frac{1}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen, 1.

*Female*.—Smaller and slightly paler in colouration, otherwise exactly like the male. Lateral rectrices with scarcely any bronze at base, but bluish-black for half their length, and the rest white. Only very adult males have the shafts of the primaries broad and flat on their basal half. I have some very fine males where this peculiarity is scarcely visible.

My fine series of this species were collected by Mr. H. Whitely, in British Guiana.

480. *CAMPYLOPTERUS OBSCURUS*, Gould, P.Z.S., 1848, p. 13.

*Campylopterus aequatorialis*, Gould, Int. Troch., p. 54.

*Sombre Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 49.

*le Campyloptère obscur*.

I cannot see any differences between this species and the preceding one, and I am of the same opinion as Messrs. Elliot and Mulsant that they all belong to one species.

My specimens were collected in Ecuador, and Upper Amazons, by Buckley.

481. *CAMPYLOPTERUS HEMILEUCURUS*, Licht., Preiz. Verz. Mex. Thier., 1833, No. 33.

*Orismya delattrei*, Less., Rev. Zool., 1839, p. 14.

*Mellisuga delattrei*, Gray, Gen. Birds, vol. i., p. 113.

*Campylopterus delattrei*, Gould, Mon. Troch., vol. ii., p. 45.

*Delattre's Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 45.

*Le Campyloptère de Delattre*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 125.

*Habitat*.—Mexico to Veragua.

*Male*.—Top of head and lores dull greenish-black. Upper-side bright metallic purple-blue passing to dark shining green on rump. Uppertail-coverts shining dark green. Median rectrices dark bronzy-green, next one bluish-black, the rest bluish-black for half their length, remainder pure white. Underside bright metallic violet-blue. A small spot behind the eye, anal region, and line on sides of flanks white. Wings purplish-brown. Bill black.

Total length, 5 $\frac{6}{8}$ in. Wing, 3 $\frac{1}{8}$ . Tail, 2 $\frac{1}{2}$ . Culmen, 1 $\frac{1}{8}$ .

*Female*.—Upperside shining green, dark golden-brown on head. Tail like that of the male, excepting the two median rectrices, which are shining bronzy-green. Centre of throat metallic purple-blue. Rest of underside gray, sparingly washed with green on sides of breast and flanks.

Total length, 5 $\frac{3}{8}$ in. Wing, 2 $\frac{7}{8}$ . Tail, 2 $\frac{1}{8}$ . Culmen, 1 $\frac{1}{16}$ .

I have some specimens from Veragua with the tips of median rectrices brownish-black and the abdomen and flanks metallic greenish-blue; but I do not think it is sufficient to make a species with it.

It is a common species in Mexico and Guatemala. In Costa Rica and Veragua it is rarer. I have collected this species in different parts of Mexico, and in the semi-tropical forests of Costa Rica.

482. *CAMPYLOPTERUS ENSIPENNIS*, Swains. Zool. Illust., vol. ii., pl. 107.

*Campylopterus ensipennis*, Less., Ois. Mou., 1829, p. 124.

*Polytmus ensipennis*, Gray, Gen. Birds, vol. i., p. 107.

*Blue-throated Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 46.

*Le Campyloptère ensipenne*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 122.

*Habitat*.—Trinidad and Tobago.

*Male*.—Head brilliant metallic green, golden in certain lights. Upperside shining green. Median rectrices dark bronzy-green, the next one bluish-black, the others bluish-black at base, rest pure white. Chin and throat dark metallic lazuline-blue. Remainder of underside shining metallic golden-green. Wings purplish-brown. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{2}{3}$ . Culmen,  $1\frac{1}{3}$ .

*Female*.—Differs from the male in having the centre of the throat lazuline-blue and a white stripe from maxilla to ear-coverts. Centre of breast and abdomen gray. Anal region white.

Total length, 5 in. Wing,  $2\frac{7}{8}$ . Tail, 2. Culmen,  $1\frac{2}{3}$ .

A few years ago, this species was sent abundantly from Trinidad, but lately I have not seen any.

GENUS CXLIV. **Saepiopterus**, Reich., Aufz. der Colib., 1853, p. 11.

TYPE: *T. lazulus*, Vieillot.

Bill curved, longer than the head. Nostrils covered by a membrane. Wings long nearly reaching the end of tail; shafts of the three primaries in the males broad and flattened. Tail rounded with a small pointed tip in median rectrices in some species. Rectrices broad of the same length. Sexes alike.

*Habitat*.—Venezuela, Colombia, Ecuador, Trinidad and Tobago.

483. SAEPIOPTERUS LAZULUS, Vieillot, Tabl. Encycl., part ii., p. 557.

*Trochilus lazulus*, Bonnat., Encycl., Méth., 1791, vol. ii., p. 557.

*Trochilus falcatus*, Less., Ois. Mou., 1829, p. 126.

*Campylopterus lazulus*, Bon., Rev. and Mag. Zool., 1854, p. 250.

*Lazuline Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 44.

*Le Campyloptère lazulite*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 132.

*Habitat*.—Venezuela, Colombia, Ecuador.

*Male*.—Head and neck bright metallic golden-green. Rest of upperside shining green with golden reflections. Median rectrices deep chestnut, tipped with shining green, the next one of the same colour with one side of tip shining green, the next one bluish-black, last lateral and outermost ones deep chestnut, slightly tipped with bluish-black. Throat, breast, and upper part of abdomen dark metallic blue with a purple lustre, passing to glittering green on flanks and lower part of abdomen. Undertail-coverts chestnut with green edges on the upper feathers. Wings purplish-brown. Bill black.

Total length,  $5\frac{2}{8}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen, 1.

*Female*.—Like the male, but smaller and not quite so brilliant.

*Young Male*.—Upperside shining green. Outermost rectrices chestnut, the others like that of the male. Centre of throat shining blue. Rest of underside gray washed with shining green feathers on sides of breast, and on flanks. Under-tail coverts rufous, edged with gray.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen, 1.

In my opinion all former authors have described young birds as females.

It is a common species in Colombia.

I have specimens of both sexes from that country, and others collected at Merida (Venezuela).

One fine male collected by Goering, at Merida, has the throat and breast of a lighter blue, and the median rectrices with bluish-black tips. If it should prove a distinct species, I propose the name of *Saepiopterus goeringi* for it.

484. SAEPIOPTERUS PLAINOPEPLUS, Salv. and Godm., Ibis., 1879, p. 202.

*Simons's Sabre-wing*.

*le Campyloptère de Simons*.

*Habitat*.—Sierra Nevada of Santa Marta, Colombia.

*Male*.—Top of head dark shining green. Head and neck glittering metallic green. Rest of upperside glittering green, darker on the uppertail-coverts. Tail shining dark purplish-blue with some greenish-bronze along the inner web of median rectrices; this bronzy part does not reach the tips. Throat and breast dark metallic blue passing to glittering dark green with blue reflections in certain lights on the lower part of breast, abdomen and flanks. Undertail-coverts shining green passing to greenish-blue on lower part. Wings purplish-brown. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{5}{8}$ . Tail, 2. Culmen, 1.

The above description was taken from a splendid specimen in my collection.

*Female?* — Upperside shining green. Tail steel-blue. Underside gray.

This splendid and very rare species was discovered by Mr. Simons in the Sierra Nevada of Santa Marta, in 1879, at an altitude, between 4,000 and 15,000 feet.

\*485. *SAEPIOPTERUS VILLAVICENCIO*, Bourc., Compt. Rend., vol. xxxii, p. 187.

*Heliomaster villavicensio*, Reich., Aufz. der Colib., 1853, p. 13.

*Campylopterus splendens*, Lawr., Ann., N.Y., Lyc. Nat. Hist., 1858, vol. vi., p. 262.

*Villavicensio's Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 47.

*Le Campyloptère de Villavicensio*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 130.

*Habitat*.—Rio Napo (Ecuador).

*Male*.—Top of head metallic golden-green. Upper parts and flanks dark green. Wings purplish-brown. Throat deep metallic purplish-blue. Under surface dark greenish-gray. Median rectrices dark green, remainder steel-blue. Bill black.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{5}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen, 1.

*Female?*—Top of head metallic golden-green. Upper parts golden-green. Under surface ashy-white. Tail like that of the male but with the lateral feathers tipped with grayish-white. Maxilla black. Mandible flesh colour. "Elliot's H. Syn. Birds, p. 270."

It is one of my desiderata.



486. *SAEPIOPTERUS RUFUS*, Less., Rev. Zool., 1840, p. 73.

*Polytmus rufus*, Gray, Gen. Birds, vol. i., p. 107.

*Platystylopterus rufus*, Reich., Aufz. der Colib., p. 11.

*Fawn-breasted Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 50.

*Le Campyloptère roux*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 134.

*Habitat*.—Guatemala.

*Male*.—Upperside golden-green. Median rectrices shining golden-green passing to reddish-gold on tips, next one more brilliant with a darkish brown subterminal bar near the tip which is rufous, remainder rufous for half their length passing to golden-green, less apparent on the outermost rectrices, then bluish-black with pale rufous tips; the outermost rectrices have all the external web rufous. Underside buff. Wings purplish-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length,  $5\frac{2}{8}$  in. Wing, 3. Tail,  $2\frac{2}{8}$ . Culmen, 1.

*Female*.—Slightly smaller than the male.

It is a rare species.

487. *SAEPIOPTERUS HYPERYTHRUS*, Cab., Schomb. Reise., Brit. Guiana, 1848, vol. iii., p. 709.

*Platystylopterus hyperythrus*, Reich., Aufz. der Colib., 1853, p. 11.

*Loxopterus hyperythrus*, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 13.

*Rufous-breasted Sabre-wing*, Gould, Mon. Troch., vol. ii., p. 51.

*Le Campyloptère rougeâtre*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 135.

*Habitat*.—Guiana.

*Male*.—Upperside shining golden-green, darker and greener on head. Four central rectrices shining metallic golden-bronze. Laterals and outermost ones rufous. Underside dark rufous. Wings purplish-brown. Maxilla black. Mandible flesh-colour at base, remainder brownish-black.

Total length, 5 in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Exactly like the male, but slightly smaller.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen,  $\frac{13}{16}$ .

This extremely rare species was discovered by the well-known explorer, Mr. Schombourg, at Roraima (British Guiana). The type remained unique from 1843 to 1883, when the active collector, Mr. H. Whitely, Junior, re-discovered the bird at the same place.

My specimens, male and female, were collected by him.

It is a very good species, quite distinct from *C. rufus*.

## FAMILY XVIII. PHAETHORNIIDAE,

OR FAMILY OF HERMIT HUMMING-BIRDS.

Size from very small to large. Bill long, more or less curved. Sheath of both maxilla and mandible smooth; nasal covers partially exposed. Wings narrow and short. Tail rounded, cuneate, or with the median rectrices much elongated. Sexes alike. In the Genus *Eutoxeres* the bill is curved to the third of a circle.

TYPE: *Phaethornis*, Swainson, Zool. Journ., 1827, p. 357.

RANGE.—Mexico to Bolivia, Colombia, Venezuela, Brazil, Guiana, Trinidad and West Indies.

GENUS CXLV. *Glaucis*, Boié. Isis, p. 545.

TYPE: *T. hirsitus*, Gmelin.

Bill long, much curved, stout and high at base. Wings long and narrow. Tail short, rounded. Rectrices narrower and pointed in females or young. Outermost one shortest, the other rectrices gradually longer. Median shorter than the lateral, close to it, and of the same length as the next one. Sexes alike.

*Habitat*.—Venezuela, Guiana, Trinidad, Grenada, Brazil, Colombia, and Ecuador.

488. *GLAUCIS HIRSUTA*, Gmel., Syst. Nat., 1788, t. i., p. 490.

*Trochilus braziliensis*, Lath., Ind. Ornith., 1790, vol. i., p. 308.

*Trochilus ferrugineus*, Wied. Beilr., vol. iv., p. 120.

*Trochilus dominicus*, Licht. Doublt., p. 10.

*Polytmus hirsutus*, Gray, Gen. Birds, vol. 1, p. 108.

*Hairy Hermit*, Gould, Mon. Troch., vol. i., p. 5.

*Le Glaucis hirsute*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 40.

*Habitat*.—Brazil, Trinidad, Grenada.

*Male*.—Upperside shining green, darker on head, upper-tail coverts, margined with buff and tipped with gray. Median rectrices shining greenish-bronze, darker near the tips, which are white. Laterals deep chestnut, passing to bluish-black near the tips, which are white; the outermost ones of the same colour margined on outer web, and tipped with bluish-black. Chin pale buff, passing to dark rufous on throat. Auriculars blackish-brown. Breast and flanks buff. Abdomen light rufous. Undertail-coverts light rufous, margined and edged with grayish-white. Wings purplish-brown. Maxilla black. Mandible flesh-colour with brown tip.

Total length,  $5\frac{2}{3}$  in. Wing,  $2\frac{6}{8}$ . Tail, 2. Culmen,  $1\frac{3}{8}$ .

*Female*.—Upperside like that of the male; median rectrices pointed with their tips white, next one dark chestnut at base bronzy on outer web and near the tip which is white, the rest bronzy on outer webs and passing to dark bluish-brown near the tips which are white. Underside bright buff excepting the centre of lower part of abdomen and anal region which are white. Undertail-coverts pale buff, edged with grayish-white. Wings purplish-brown. Maxilla black. Mandible flesh-colour with black tip. Size smaller than the male.

Total length,  $4\frac{2}{3}$  in. Wing,  $2\frac{5}{16}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{2}{8}$ .

I have a fine series of this species from Trinidad and Grenada. The last ones were sent to me in 1891. They were collected by Mr. Wells, and the sexes are carefully recorded.

\*489. *GLAUCIS DORHNI*, Bourc., Ann. Soc., Sci., Lyon., 1852.

*Grypus spixi*, Gould, P.Z.S., 1860, p. 304.

*Spix's Saw Bill*, Gould, Mon. Troch., vol. i., p. 2.

*Dohrn's Hermit*, Gould, Mon. Troch., vol. i., p. 10.

*le Glaucis de Dohrn*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 45.

*Habitat*.—Brazil.

Resembles very much *G. hirsuta*, but the females have all the rectrices reddish-bronze tipped with white, most extensively so on the outermost ones.

Total length,  $4\frac{7}{8}$  in. Wing,  $2\frac{3}{4}$ . Tail,  $1\frac{3}{4}$ . Culmen,  $1\frac{1}{2}$ .

490. GLAUCIS MAZEPPA, Less., Troch., 1831, p. 18.

*Trochilus superciliosus*, Less., Col., 1831, t. vi.

*Glaucis lanceolata*, Gould, Mon. Troch., vol. i., p. 8.

*Mazeppa Hermit*, Gould, Mon. Troch., vol. i., p. 6.

*le Glaucis de Mazeppa*.

*Habitat*.—Tobago, Guiana, Brazil.

Crown of the head dull brown; all the upper surface, wing, and tail-coverts bronzy-green, the latter fringed with gray; wings purplish-brown; under surface deep fawn colour, fading into buffy-white on the chin; a small mark behind, and a stripe below each eye buffy-white; two centre tail-feathers green at base, the remainder rich deep cinnamon-red, crossed by a band of black near the extremity, and tipped with white; upper mandible black; lower mandible yellow at the base, black at tip; feet yellow or flesh colour.

491. GLAUCIS LANCEOLATA, Gould, Mon. Troch., vol. i., p. 8.

*Lanceolate Hermit*, Gould, Mon. Troch., vol. i., p. 8.

*le Glaucis à queue en forme de lance*.

*Habitat*.—Para.

Closely allied to *G. mazeppa*, but the tail feathers are narrower, and much more pointed or lance-shaped.

492. GLAUCIS MELANURA, Gould, Mon. Troch., vol. i., p. 9,  
P.Z.S., 1860, p. 364.

*Black-tailed Hermit*, Gould, Mon. Troch., vol. i., p. 9.

*le Glaucis à queue noire*.

*Habitat*.—Napo and Rio Negro.

Much smaller than all the other species, and a greater amount of black colouring in its tail, the extreme base, and only that of the inner webs of the feathers being marked with

chestnut; in fact, when the tail is closed and viewed from beneath, it appears to be entirely black, the under-coverts concealing the buff colouring.

493. *GLAUCIS ROJASI*, n.sp.

*Rojas Hermit.*

*le Glaucis de Rojas.*

*Habitat.*—Caracas, Venezuela.

This species is very closely allied to the preceding one, but has the abdomen buffy-gray, and the bill shorter.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $1\frac{1}{8}$ .

Type in my collection.

It was sent to me by my friend Doctor Carlos Rojas, an enthusiastic naturalist, who collected the specimens sent to me, in Caracas. I have much pleasure in dedicating this species to him.

494. *GLAUCIS RORAIMAE*, n.sp.

*Roraima's Hermit.*

*Glaucis de Roraima.*

*Habitat.*—Roraima Mountains, British Guiana.

*Male.*—Upperside shining green, darker on head, and golden on lower part of back, rump, and uppertail-coverts, each feather on these last parts being margined with blackish-brown, giving them a scaly appearance. Median rectrices shining bronzy-green, with scarcely-visible brownish band near the tips, which are white. Laterals red chestnut at base, with a broad sub-terminal bronzy-black bar and broad white tips, outermost rectrice margined with brownish-black on outer web. All the rectrices pointed. Chin grayish-buff, passing to dark buff on throat, breast, and flanks. Lower part of breast and abdomen dark sooty-gray. Sides of throat washed with shining green feathers. Undertail-coverts buff, margined with grayish-white. Wings purplish-brown. Secondaries and tertiaries tipped or margined with buffy-white. Maxilla black. Mandible flesh-colour with tip.

Total length,  $5\frac{1}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female.*—Exactly coloured like the male but the colour of the throat and flanks is of a paler buff and the abdomen and

anal region are grayish-white. Rectrices narrow and pointed, as in the male.

This new species was discovered in the Roraima Mountains, British Guiana, by the late Mr. H. Whitely, the well known Collector.

495. GLAUCIS AENEA, Lawr., Proceed. Acad. Nat. Scien. Phil., 1867, p. 232.

*Glaucis affinis*, Lawr., Ann. Lyc., N.Y., t iv., p. 261.

*Golden Hermit.*

*le Glaucis doré.*

*Habitat.*—Costa Rica, Panama, Upper Amazons, Colombia, and Ecuador.

*Male.*—Upperside shining green, golden in certain lights. Uppertail-coverts shining green edged with gray. Median rectrices shining green, edged with bluish-black near the tips which are white. Laterals reddish-chestnut slightly margined near the tips with bronzy-black, tips white. Outermost ones brownish on outer web and near the tip which is white. Chin dark gray, passing to dark rufous-gray on all the under parts, and washed with dark shining green feathers on the throat, the sides of the neck, and breast, centre of abdomen, and flanks gray. Undertail-coverts pale gray or pale rufous with white edges. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 5in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{7}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female.*—Upperside like the male. Tips on median rectrices broad and white. Laterals from base to half their length red-chestnut, remainder brownish-black with white tips.

Total length,  $4\frac{1}{2}$ in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $1\frac{2}{8}$ .

I have a fine series of this species which cannot be confused with any of the others in consequence of the dark colouration of its underparts.

GENUS CXLVI. **Ramphodon**, Lesson, Ind., Gen., Ois. Genr. Troch, 1832, p. 8.

GRYPUS, Spix. Av. Sp., Nov., 1824, p. 79., (name already employed in 1817 for a genus of Colcoptera).

TYPE: *T. naevius*, Dumont.



Bill nearly twice as long as the head, curved, edges of mandible in the male serrated near the tip, which is hooked, culmen compressed at base. Mandible of female curving slightly upwards near the tip, leaving an open space between it and the maxilla. Wings long and ample. Outermost rectrice the shortest, the next one gradually longer, the others including the medians of same length. Sexes alike.

*Habitat*.—Brazil.

496. RAMPHODON NAEVIUS, Dumont, Dict. Sc. Nat., t. xvii, p. 432.

*Grypus ruficollis*, Spix, Av. Bras., 1824, vol. i., p. 79.

*Ramphodon maculatum*, Less., Colib., 1831, p. 18.

*Saw Bill*, Gould, Mon. Troch., vol. i., p. 1.

*Le Grype tacheté*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 34.

*le Ramphodon tacheté*.

*Habitat*.—Brazil.

*Male*.—Head dark brownish-green. Upperside dark golden-green, each feather margined with dark brown, giving a scaly appearance to all that part. Uppertail reddish-bronze, margined with blackish-brown, and edged with rufous. Median rectrices reddish-bronze, darkest at the tip, next one also bronze tipped with buff. Lateral and outermost ones purplish-black at base and largely tipped with buff. These buff tips run in an oblique direction, and are more extensive on the outer webs. Chin and a line in the centre of throat black. Sides of throat reddish-buff. Line behind the eye buff. Ear coverts black. Underside black on the breast conspicuously edged with white. Abdomen and flanks blackish-brown, edged with buff. Undertail-coverts brownish-black in centre, broadly edged with buff. Wings purplish. Maxilla black. Mandible flesh colour with brownish tip.

Total length,  $6\frac{1}{2}$  in. Wing, 3. Tail,  $2\frac{1}{2}$ . Culmen,  $1\frac{1}{2}$ .

*Female*.—The black line of chin and throat is very narrow, remainder of throat and breast reddish-buff. Rest of plumage like that of the male. Size smaller.

Total length,  $4\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail, 2. Culmen,  $1\frac{3}{8}$ .

It is a rare species in the Collections.

GENUS CXLVII. **Androdon**, Gould, Ann., Mag. Nat. Hist., 1863, p. 247.

TYPE: *A. aequatorialis*, Gould.

Bill twice as long as the head, straight, broad at base and tapering to a point. Cutting edges serrated and tip hooked. Wings long, reaching nearly the end of the tail, which is rather short, broad, and rounded. Feet moderate, tarsi naked. Size large.

*Habitat*.—Ecuador.

\*497. **ANDRODON AEQUATORIALIS**, Gould, Ann., Mag. Nat. Hist., 1863, p. 247.

*Grypus aequatorialis*, Muls. Hist. Nat. Ois. Mou., 1873, t. i., p. 32.

*Ecuadorian Tooth-Bill*, Gould, Mon. Troch. Suppl., 1886, p. 2.

*Le Grype de l'Equateur*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 32.

*l'Androdon de l'Equateur*.

*Habitat*.—Ecuador.

*Male*.—Bill long, straight, hooked at point, serrated on the edges of both maxilla and mandibles. Forehead dark gray, feathers tipped with metallic grass-green, occiput and nape metallic dark blue. Back bright metallic light grass-green. Rump white, a few dark blue feathers on the edge of the green of the back. Underparts white, edges of feathers blackish-brown. Undertail-coverts olive-green, central part and tips of feathers white. Wings dark purple. Median feathers of tail greenish-gray, tipped with dark green; lateral feathers greenish-gray, with a subterminal bar of dark green, tips white. Maxilla black. Mandible flesh-colour.

Total length,  $5\frac{1}{4}$ . Wing,  $2\frac{3}{4}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{3}{4}$ .

The female differs by the colouration of the head, which has the forehead dark purplish-brown, the top of the head bronze, and the occiput dark metallic green.

"Elliot's Syn. of the H. Birds, page 5."

It is a very rare species, and one of my desiderata.

GENUS CXLVIII. **Eutoxeres**, Reich., Syst. Av. Nat., 1849, t. xi.

MYIAETINA, Bon., Rev. and Mag. Zool., 1854, p. 249.

TYPE: *T. aquila*, Bourcier.

Bill greatly curved, forming nearly one third of a circle, wide at base, narrowing suddenly and becoming compressed laterally, mandible entirely hidden in maxilla except at the point. Cutting edges of bill not serrated. Tail cuneate, feathers pointed, long, of same length, except the two outermost ones which are gradually and slightly smaller. Feet large. Tarsi bare. Sexes alike.

*Habitat*.—Costa Rica, Veragua, Colombia and Ecuador.

498. EUTOXERES AQUILA, Bourc., P.Z.S., 1847, p. 42.

*Polytmus aquila*, Gray, Gen. Birds, 1844-49, vol. 1, p. 108.

*Myiaetina aquila*, Bon., Rev. and Mag. Zool., 1854, p. 249.

*Eutoxeres salvini*, Gould, Ann. Mag., Nat. Hist., 1868, vol. i., p. 458.

*Eutoxeres heterura*, Gould, Ann. Mag., Nat. Hist., 1868, vol. i., p. 455.

*Sickle Bill*, Gould, Mon. Troch., vol. i., p. 3.

*Eutoxère aigle*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 28.

*Habitat*.—Costa Rica, Veragua, Columbia and Ecuador.

*Male*.—Upperside dark shining green, dark brown on head. Uppertail-coverts shining green, margined with rufous. Median rectrices shining dark green, tipped with white. Laterals dark green on outer webs, brownish-green on inner, and broadly tipped with white. Underside blackish-brown, striated with buffy white on throat and breast. On the abdomen the striated feathers are white in centre, and margined with grayish-black, sometimes intermixed with buff. Sides of breast and abdomen washed with shining green. Undertail coverts buff in centre, margined with black, and edged with buff. Wings purplish. Maxilla black. Mandible flesh colour.

Total length, 5in. Wing, 3. Tail, 2 $\frac{2}{3}$ . Culmen, 1.

The small differences in the colour of the striated feathers of the underside between the specimens from Central America

and Ecuador are not sufficient to separate these birds. I have some specimens from Colombia which are exactly like those from Central America and Ecuador. It is a remarkable bird. It was discovered in Veragua by Mr. Warszewicz.

499. EUTOXERES BARONI, Ernst. and Hart., Novit. Zool.  
vol. i., 1894, p. 12.

*Habitat*.—Rio Penado, Ecuador.

Closely allied to *E. heterura* and *aquila*, from which species it may be distinguished by its olive-gray tail with a faint metallic hue only, if any, and with small white tips to the rectrices, sometimes restricted to the central pair, and sometimes altogether absent.

“Ernst. and Hartert, Novit. Zool., p. 12.”

Type in Museum Rotschild.

I have not seen this species, but I am of opinion that it is not valid. It must be the well known *E. aquila*.

500. EUTOXERES CONDAMINEI, Bourcier, Compt., Rend.,  
1851, t. xxxii., p. 186.

*Myioetina condaminei*, Bon. Rev. and Mag., Zool. 1854,  
p. 249.

*Condamine's Sickie Bill*, Gould, Mon. Troch., vol. i., p. 4.

*l'Eutoxère de la Condamine*, Muls. Hist. Nat. Ois. Mou.,  
1873, t. i., p. 30.

*Habitat*.—Ecuador.

This species is easily distinguished from the preceding one by the shining metallic green spot on each side of upperpart of breast and neck, and the three outermost rectrices which are buff with white tips.

It is a rare species. My specimens were collected in 1877, at Napo, by Buckley. It was discovered by Bourcier, and dedicated by him to Mr. Charles de la Condamine, the celebrated French Astronomer.

GENUS CXLIX. **Threnetes**, Gould, Int. Troch., 1861,  
p. 40.

TYPE: *T. leucurus*, Linné.

Bill twice as long as the head, straight, sharply pointed, and

slightly curved at tip. Wings long, nearly reaching the end of tail. Tail short, rectrices broad, pointed at tips, of the same length, excepting the outermost ones which are slightly shorter. Feathers of forehead projecting on culmen. Nostrils partially hidden. Sexes alike.

*Habitat*.—Guatemala, Central America, Panama, Colombia, Ecuador, and Guiana.

501. THRENETES LEUCURUS, Linné, Syst. Nat., 1766, vol. i., p. 190.

*White-tailed Humming Bird*, Lath., Gen. Syn., vol. ii., p. 757.

*Polytmus leucurus*, Gray, Gen. Birds, vol. i., p. 108.

*Glaucis leucurus*, Bon., Consp., Gen. Av., 1850, p. 67.

*White-tailed Barbed throat*, Gould, Mon. Troch., vol. i., p. 14.

*Le Glaucis à queue blanche*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 50.

*Habitat*.—Guiana.

*Male*.—Upperside bronze-green, darker on the head. Uppertail-coverts bronze-green, edged with gray. Median rectrices bronze-green, slightly margined at tips with white, laterals white, outermost ones margined and tipped more or less with brownish-black. Chin and throat deep buff with the centre of chin black. Lores and auriculars brown. A band of black on breast just under the buff. Breast and flanks shining dark green. Abdomen grayish-buff. Undertail-coverts shining green, edged with gray. Wings purple. Maxilla black. Manible flesh colour with black tip.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $1\frac{1}{8}$ .

It is a very rare species.

502. THRENETES CERVINICAUDA, Gould, P.Z.S., 1854, p. 109.

*Fawn-tailed Barbed-throat*, Gould, Mon. Troch., vol. i., p. 15.

*le Glaucis à queue fauve*.

*Habitat*.—Colombia, Ecuador and Peru.

*Male*.—Upperside shining green, passing to bronzy on the uppertail-coverts. Median rectrices bronze-green, slightly

margined at tips with pale buff. Lateral and outermost ones pale buff. Chin and ear-coverts black. Throat buff; just under it, in the centre, is a large spot of dark green feathers appearing quite black. Breast shining bronzy-green. Abdomen and flanks pale buff. Undertail-coverts shining green, edged with buff. Wings purple. Maxilla black. Mandible flesh-colour for a little more than half its length, the rest black.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{2}{3}$ .

*Female*.—Upperside like the male. Chin brownish-black. A band of pale buff on the upper part of breast. Sides of breast and flanks shining green with rufous edges. Rest of underside grayish-brown, white in the centre of abdomen. Lateral rectrices purplish with buffy-white tips. Outermost ones pale buff with a broad purplish tip.

Slightly smaller than the male.

I have also two specimens, one from Pebas, collected by Hauxwell, and one from Napo, collected by Buckley. They differ in having a white band on each side of the black of the chin, the band of the throat is buff but narrower, the black band under it is also narrower, the abdomen is grayish with a rufous tinge, and the two outermost rectrices are largely margined on outer webs and with blackish-purple tips.

If it should prove a distinct species, I propose the name of *T. hauxwelli* for it, as he collected it before Buckley. On the label it has the date of 26/6/67. x

503. THRENETES RUCKERI, Bourcier, P.Z.S., 1847, p. 46.

*Polytmus ruckeri*, Gray, Gen. Birds, vol. i., p. 108.

*Glaucis ruckeri*, Gould, Mon. Troch., vol. i., p. 11.

*Rucker's Hermit*, Gould, Mon. Troch., vol. i., p. 11.

*Le Glaucis de Rucker*, Muls., His. des Ois Mou., 1873, t. i., p. 48.

*Habitat*.—Veragua, Ecuador.

*Male*.—Upperside shining green, darker on the head. Median rectrices shining green, darker near the tips which are white. Lateral and outermost ones white at base, then bluish-black with white tips. Auriculars, chin, and upper part of breast black, lower part of breast rufous, a buffy stripe behind the eye. Abdomen and flanks brownish-gray washed



with green feathers on the sides. Anal region pale rufous. Undertail-coverts shining green, margined with rufous. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{3}{8}$ .

*Female*.—Slightly paler in colouration.

It is a rare species. It was discovered in Veragua by Mr. Warezewicz, and dedicated by Bourcier to the late Mr. Sigimond Rucker, a city merchant, who formed a very fine collection of Humming Birds during his lifetime.

504. THRENETES FRASERI, Gould, Mon. Troch., vol. i., p. 12.

*Fraser's Hermit*, Gould, Mon. Troch., vol. i., p. 12.

*le Glaucis de Fraser*.

*Habitat*.—Guatemala.

*Male*.—Upperside shining golden-green. Median rectrices bronzy-green with white tips. Lateral and outermost ones white at base, then black with white tips. Underside like *T. ruckeri*, excepting the undertail-coverts which are bronzy-green broadly margined with buff.

Total length,  $4\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $1\frac{6}{8}$ . Culmen,  $\frac{1}{8}$ .

It was dedicated to Mr. Fraser, who, I believe, was the discoverer of the species.

It is very rare in the collections.

GENUS CL. **Dnophera**, Heine., Journ. fur Ornith., 1863, p. 175.

TYPE: *T. antoniae*, Bourcier and Mulsant.

Bill twice as long as the head, slightly curved. Wings long and narrow, nearly reaching the end of tail. Rectrices of tail narrow and short, without any white on tips. Outermost shortest, the next one slightly longer, the others slightly longer and of the same length. Feet small. Sexes alike.

*Habitat*.—Guiana.

505. DNOPHERA ANTONIAE, Bourc. and Muls., Ann. Soc. Agr., Lyon., 1846, p. 329.

*Lampornis antoniae*, Bon., Consp., Gen. Av., 1850, vol. i., p. 72.

*Aphantochroa antoniae*, Reich., Aufz. der Col., 1853, p. 15.

*Polytmus antoniae*, Gray, Gen. Birds, vol. i., p. 108.

*Threnetes antoniae*, Gould, Mon. Troch., vol. i., p. 15.

*Glaucis antoniae*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 46.

*Sooty Barbed-throat*, Gould, Mon. Troch., vol. i., p. 15.

*Le Glaucis d'Antonie*, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 46.

*Habitat*.—Guiana.

*Male*.—Upperside shining greenish-bronze. Tail dark shining green-bronze, darker at tips. Chin and upperpart of throat black. Rest of throat and breast dark shining bronzy-green, passing to brown on flanks, abdomen, and undertail-coverts. Maxilla black. Mandible flesh colour with black tips.

Total length,  $4\frac{2}{8}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $1\frac{1}{2}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Upperside bronzy-reddish-green. Rectrices of tail wider than in the male and very slightly margined with buffy-gray. Chin brownish-black in the centre, pale brown on the sides. A small buffy-bronze spot in the centre of throat, just under the black of the chin. Underside bronzy-green, with lower parts of flanks and abdomen pale brown.

Same size as the male.

This very rare species was dedicated by Messrs. Bourcier and Mulsant to Mrs. Antonie Perroud, whose husband was a liberal patron of Science.

GENUS CLI. **Toxateuches**, Cab. and Heine, Mus. Hein, 1860, t. iii., p. 11.

TOXOTEUCHES, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 55.

TYPE: *T. guyi*, Lesson.

Bill much longer than the head, curved, and acutely pointed. Wings long, reaching the end of the third lateral rectrices. Median rectrices in males wide and longest, with a very short narrow tip. In the females this narrow tip is about three times longer. Lateral rectrices gradually longer, the fourth reaching nearly the elongated tip of the median rectrice. Outermost ones shortest. Nostrils exposed. Feet small. Sexes unlike.

*Habitat*.—Costa Rica, Veragua, Colombia, Ecuador and Trinidad.

506. TOXATEUCHES EMILIAE, Bourc. and Muls., Ann Soc., Agr. Lyon., 1846, p. 17.

*Trochilus apicalis*, Tschudi, Faun. Peruana, 1844, p. 243.

*Trochilus yaruqui*, Bourc., Compt. Rend., 1851, t. xxii, p. 187.

*Guyornis yaruqui*, Bon., Rev. and Mag. Zool., 1854, p. 249.

*Toxateuches yaruqui*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 2.

*Yaruquian Hermit*, Gould, Mon. Troch., vol. i., p. 27.

*Le Phaethornis d'Emilie*.

*Habitat*.—Costa Rica, Veragua, Colombia, and Ecuador.

*Male*.—Upperside dark shining green. Superciliary stripe and one at base of mandible buff. Uppertail-coverts shining blue. Tail shining blue at base, then black. Central feathers tipped with white. Underside dark shining green all over in very old males, in others dark slaty-gray on breast, abdomen, and flanks. Undertail-coverts shining bronzy-blue, edged with white. Wings purplish-black. Maxilla black. Mandible flesh-colour with black tip.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $2\frac{1}{2}$ . Culmen,  $1\frac{6}{8}$ .

*Female*.—Upperside dark shining-green, brown on head. Uppertail-coverts shining blue, edged with white. Centre of throat, stripe behind the eye, and one from maxilla running under the ear-coverts, buff. Rest of underside slaty-gray, passing to buff on the abdomen. Lateral rectrices with tips margined with white, as are also the long tips of central feathers. Size and rest of plumage like the male.

I have collected both sexes of this species in Costa Rica, in 1877. I have also some specimens collected by Arcé, in Veragua, by Buckley, in Ecuador, one specimen collected by Whitely, at Huiro, Peru, and others from Colombia. To me there is no doubt whatever that *P. yaruqui*, is identical with this species, and I believe that *P. guyi* will probably turn out to belong also to the same species.

507. TOXATEUCHES GUYI, Less., Hist. Troch., 1831, t. xlv., p. 119.

*Guyornis typus*, Bon., Rev. and Mag., Zool., 1854, p. 249.

*Guy's Hermit*, Gould, Mon. Troch., vol. i., p. 26.

*Le Phaethornis de Guy*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 58.

*Habitat*.—Trinidad.

*Male and Female*.—Exactly the same as the preceding species, from which it differs only by the green of the upper-tail-coverts, and base of rectrices.

GENUS CLII. **Phaethornis**, Swainson, Zool., Journ., 1827, p. 357.

PHRETHORNIS, Boiè, Isis, 1831, p. 548.

PHAETHORNIS, Less., Ind. Gen. and Syn., 1832, p. 14.

PTYONORNIS, Reich., Aufz. der Colib., 1853, p. 14.

TYPE: *T. superciliosus*, Linné.

Bill curved, much longer than the head, slender and terminating with a sharp point. Wings long and pointed. Tail cuneate or rounded. Median pair of rectrices twice longer than the longest lateral, and always tipped with white in both sexes. Nostrils exposed. Feet small. Tarsi bare. Sexes similar.

*Habitat*.—Mexico to Bolivia on the Pacific, and to South Brazil on the Atlantic.

508. PHAETHORNIS SUPERCILIOSUS, Linné, Syst. Nat., 1766, t. i., p. 189.

*Brin blanc*, Vieill., Ois. Dor., 1802, t. i., p. 37.

*Trochilus malaris*, Norden., Erm. Reise. Alt., 1835, pl. 2.

*Cayenne Hermit*, Gould, Mon. Troch., vol. i., p. 17.

*Le Phaethornis à bande sourcillère*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 62.

*Habitat*.—Guiana.

*Male*.—Upperside dark shining greenish bronze, all the feathers of the rump and uppertail-coverts bronze, then black edged with rufous, the base of feathers pale gray. Tail

shining bronze at base, followed by bronzy-black, and tipped with pale buff. Central rectrices, twice as long as the longest of lateral, bronze at base, then black, the remaining part beyond the lateral white, and rounded at tips. Chin dark bronze, black in certain lights. Rest of underside brown changing to pale buff on the abdomen. Undertail-coverts pale bronze in the centre, and margined with pale buff. Stripe over the eye, spot behind, and one from the maxilla running under the eye pale buff. Ear coverts brownish-black. Wings purplish-brown. Maxilla black. Mandible flesh-colour, probably red in life, with black tip.

Total length,  $6\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail,  $3\frac{3}{8}$ . Culmen,  $1\frac{5}{8}$ .

*Female*.—Similar to the male but slightly paler and smaller.

All the specimens of this species that I have seen were from Guiana. It is the largest species of the genus.

509. PHAETHORNIS EURYNOME, Lesson, Troch, 1831, t. xxxi., p. 91.

*Phaethornis melanotis*, Reich., Troch. Enum., 1855. p. 12.

*Eurynome Hermit*, Gould, Mon. Troch., vol. i., p. 16.

*Le Phaethornis d'Eurynome*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 81.

*Habitat*.—Brazil.

*Male*.—Head blackish-brown, each feather margined with rufous. Upperside, including uppertail-coverts, shining bronze-green, then black, edged with pale rufous, and giving to that part a scaly appearance. Tail bronze at base, then black with white tips. Centre of throat black, margined with rufous. A buff line behind the eye and under the cheeks and ear coverts black. Breast grayish-brown, rest of underside pale buff. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 6 in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{7}{8}$ . Culmen,  $1\frac{1}{2}$ .

*Female*.—Upperside like the male, but greener on back and wing-coverts. Chin rufous with black or brown in the centre of feather. Slightly smaller than the male.

Dedicated by Lesson to Eurynome, mother of the three Graces.

510. PHAETHORNIS LONGIROSTRIS, Less. and Delatt., Echo du Monde, Savant, 1843, p. 1070.

*Trochilus cephalus*, Bourc. and Muls., Rev. Zool., 1848, p. 269.

*Ptyonornis cephalus*, Reich., Aufz. der Col., 1853, p. 14.

*Phaethornis cassini*, Lawr., Ann., N.Y. Lyc., Nat. Hist., vol. viii., p. 347.

*Mexican Hermit*, Gould, Mon. Troch., v. i., p. 19.

*Le Phaethornis céphale*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 65.

*Habitat*.—Mexico, Guatemala and Costa Rica.

*Male*.—Head brownish-black. Upperside golden-green, passing to golden-rufous on rump and uppertail-coverts, each feather margined with brownish-black, the rufous of the undertail-coverts very apparent. Tail bronze at base, then black tipped with pale buff. Median rectrices bronze at base, then brownish-black, with tips pure white for nearly their entire length beyond the laterals. Wings purplish-brown. Gular stripe buff, passing to grayish-white on breast. Stripe over the eye and one from the maxilla going under the eye and ear-coverts pale buff. Ear-coverts black. Rest of underside pale buffy-brown, paler on breast and pale buff on vent and flanks. Near the gular stripe of chin the pale buff feathers are washed with black. Undertail-coverts pale buff. Maxilla black. Mandible flesh colour, with black tip.

Total length, 6in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{7}{8}$ . Culmen,  $1\frac{1}{2}$ .

*Female*.—Underside lighter in colour than the male, and slightly smaller.

This species was probably discovered in Guatemala, by Delattre. I am surprised that Elliot, in his Synopsis of the Humming Birds, says that it is hardly separable from *P. superciliosus*. They are quite distinct and impossible to confuse.

511. PHAETHORNIS PANAMENSIS, Boucard, Hum. Bird, 1892, p. 83.

*Panama's Hermit*.

*Le Phaethornis de Panama*.

*Habitat*.—Panama and Veragua.



*Male*.—Very closely allied to the preceding species, from which it is only to be distinguished by the darker colour of the underside, the gular stripe and the tips of rectrices, which are deep buff.

I discovered this species in Panama, in January, 1877. I have also some specimens collected at Agua Dulce, Veragua.

512. PHAETHORNIS CONSOBRINUS, Bourcier, M.S., Reich., Aufz. der Colib., 1853.

*Phaethornis moorei*, Lawr., Ann. Lyc. Nat. Hist., N.Y., vol. iv., p. 259.

*Columbian Hermit.*

*le Phaethornis de Colombie.*

*Habitat*.—Colombia, Ecuador.

*Male*.—Upperside bronzy-green, darker on the head, the undertail-coverts margined with rufous. Tail bronze at base, then brownish-black with white tips. Gular strike, one from the maxilla going under the ear-coverts and line behind the eye pale rufous. Ear-coverts brownish-black. Underside grayish-brown with bronzy tinge passing to pale rufous on the abdomen. Undertail-coverts grayish-white. Maxilla black. Mandible flesh colour with black tip.

Total length,  $5\frac{6}{8}$  in. Wing,  $2\frac{1}{2}$ . Tail, 3. Culmen,  $1\frac{5}{8}$ .

*Female*.—Like the male but slightly smaller.

513. PHAETHORNIS GUIANENSIS, Boucard, H. Bird, 1891, vol. i., p. 17.

*Guiana Hermit.*

*Le Phaethornis de la Guyane.*

*Habitat*.—Guiana and Trinidad.

*Male*.—Upper surface golden with purple reflections. These purple reflections exist only in the type of the species, others which I have received since are golden, then bordered with black, and with rufous edges. Wings purple. Tail bronze at base, then purplish-black, edged with white; the lateral rectrices are very pointed. Median rectrices bronze at base, then black, passing to brown and tipped with white or pale rufous. Gular strike, one from the maxilla going under the ear-coverts, line behind the eye, breast and abdomen pale buff,

darker on sides of the gular strike. Undertail-coverts whitish-gray. Maxilla black. Mandible coral colour, with black tip.

Total length,  $6\frac{1}{2}$  in. Wing,  $2\frac{1}{2}$ . Tail, 3. Culmen,  $1\frac{1}{2}$ .

*Female*.—Coloured like the male, but paler.

Types in Boucard's Museum.

I have some specimens of this species from Trinidad, Demerara, Bartica Grove, Meriam Mountains, and Quoya, collected by Mr. H. Whitely and others.

By the colour of the underside, which approaches that of *P. syrmatorphorus*, this species is easily recognisable.

514. PHAETHORNIS BOLIVIANA, Gould, Int. Troch., p. 42.

*Bolivian Hermit.*

*Le Phaethornis de la Bolivie.*

*Habitat*.—Bolivia.

*Male*.—This species is closely allied to the preceding one in the colouration of the upperside and underside; but can be easily distinguished by the following characters:—Median rectrices bronzed at base, then brown with white tips. Lateral and outermost rectrices bronze at base, then brownish-black, margined and tipped with rufous. Undertail-coverts rufous.

I have only one specimen of this rare species. It was collected, in Bolivia, by Buckley.

515. PHAETHORNIS SYRMATOPHORUS, Gould, Contr. Ornith., 1851, p. 139.

*Phaethornis columbianus*, Boucard, H. Bird, 1891, vol. i., p. 17.

*Train-bearing Hermit*, Gould, Mon. Troch., vol. i., p. 20.

*Le Phaethornis syrmatorphore*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 68.

*Habitat*.—Peru, Ecuador and Colombia.

*Male*.—Head brownish-black. Upperside shining golden-green, edged with buff, especially on the rump. Uppertail-coverts deep buff. Median rectrices greenish-bronze at base, passing to brownish-black, with the elongated tips white. Gular stripe white, margined with blackish-brown. Stripe over the eye,

and one from the maxilla going under the cheeks and ear-coverts, buff. Auriculars black. Underside buff, with the central lower part of abdomen and vent white. Lateral rectrices greenish-bronze at base, passing to bluish-black and largely tipped with deep buff. Wings purplish-brown. Maxilla black. Mandible orange red, with black tip.

Total length, 6in. Wing,  $2\frac{1}{2}$ . Tail,  $2\frac{6}{8}$ . Culmen,  $1\frac{1}{6}$ .

This rare species was discovered near Quito, by Professor Jameson.

After a careful comparison between the specimen, which I described in the Humming Bird under the name of *P. columbianus*, I have come to the conclusion that my typical specimen is probably a young male of *P. syrmatorphorus*.

516. PHAETHORNIS BERLEPSCHI, Ernst. and Hart., Novit. Zool., vol. i., 1894, p. 14.

*Berlepsch's Hermit.*

*le Phaethornis de Berlepsch.*

*Habitat.*—Ecuador.

Slightly smaller than *P. syrmatorphorus*, the middle of the abdomen not distinctly white, the rump like the back and the uppertail-coverts of a rich ochraceous-buff, the feathers of the upper parts are much more distinctly margined with buff than is the case in *P. syrmatorphorus*.

Length of Wing 2.2 to 2.4 in. Tail 2.7 to 2.8. Culmen 1.5 to 1.6.

Type in Museum Rothschild.

Although I have not seen the bird, it seems to me that it is a very doubtful species.

517. PHAETHORNIS ANTHOPHILUS, Bourc., Rev. Zool., 1843, p. 71.

*Pallid Hermit*, Gould, Mon. Troch., vol. i., p. 24.

*Le Phaethornis antophile*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 83.

*Habitat.*—Colombia and Venezuela.

*Male.*—Upperside shining green in some specimens, golden-green in others, darker on the head. Uppertail-coverts bronzy-green, margined with buff. Tail pale shining green at

base, passing to dark brown near the tip which is white. In the outermost rectrices there is a subterminal black bar near the tip. Chin white spotted with black, rest of underside grayish-white tinged with very pale buff on sides of breast, flanks and on the abdomen. Stripe over and behind the eye buffy-white. Auriculars black. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length,  $5\frac{2}{8}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $2\frac{2}{8}$ . Culmen,  $1\frac{1}{8}$ .

In some of my specimens, the chin is of the same colour as the rest of the underside, without any black spots. Perhaps they are females?

518. *PHAETHORNIS HISPIDUS*, Gould, P.Z.S., 1846, p. 90.

*Trochilus oseryi*, Bourc. and Muls., Ann. Soc. Agri., Lyon, 1852, vol. iv., p. 139.

*Ptyonornis hispida*, Reich., Aufz. der Colib., 1853, p. 14.

*Ametrornis oseryi*, Reich., Aufz. der Colib., 1853, p. 14.

*Orthornis oseryi*, Bon., Rev. and Mag. Zool., 1854, p. 249.

*Phaethornis villosus*, Lawr., Ann. N.Y. Lyc., Nat. Hist., vol. vi., p. 259.

*Hairy Hermit*, Gould, Mon. Troch., vol. i., p. 22.

*D'Osery's Hermit*, Gould, Mon. Troch., vol. i., p. 23.

*le Phaethornis hispide*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 71.

*Habitat*.—Colombia to Bolivia.

*Male*.—Upperside shining dark green. Uppertail-coverts bronzy-green with a black or gray bar and margined with white or pale rufous. Tail silvery green at base, passing to bronzy-brown and tipped with white. Above and behind the eye a line of white. Underside brownish-gray passing to white on abdomen and flanks. In the centre of throat a white line nearly reaching the abdomen. Undertail-coverts white with the centre brownish-green. Wings purple-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length,  $5\frac{1}{2}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $2\frac{1}{4}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Coloured like the male but the underside paler gray with a yellowish tinge on sides of neck and breast.

I have one fine specimen from Peru, which has the upper-parts bronzy-green, the bill more curved, smaller, and thinner

and the wings shorter. That is the bird named *P. oseryi* by Bourcier and Mulsant. This species was first collected by d'Orbigny, but remained undescribed until 1852. Gould described the species in 1841, from specimens collected by Bridges, in Peru and Colombia.

GENUS CLIII. **Ametrornis**, Reich., Aufz. der Col., 1853, p. 14.

AMETRORNIS, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 85.

TYPE: *T. bourcierii*, Lesson.

Bill straight, acutely pointed, much longer than the head. Wings long and pointed, reaching the tips of lateral rectrices. Median rectrices wide at base, with elongated narrow tips, wider and rounded at the end. Lateral rectrices wide, gradually longer from the outermost to the last, and pointed at tips. Nostrils exposed. Feet small. Sexes similar.

*Habitat*.—Guiana, Peru and Bolivia.

519. AMETRORNIS BOURCIERI, Less. Troch., 1832, p. 62.

*Ametrornis abnormis*, Reich., Journ. fur Ornith., 1853, p. 14.

*Orthornis bourcierii*, Bon., Rev. and Mag. Zool., 1854, p. 249.

*Phaethornis whitelyi*, Boucard, H. Bird, 1891, vol. i., p. 18.

*Bourcier's Hermit*, Gould, Mon. Troch., vol. i., p. 25.

*Le Phaethornis de Bourcier*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 86.

*Habitat*.—Peru, Guiana.

*Male*.—Upperside bronze-green, the feathers on the rump and uppertail-coverts with a sub-terminal blackish bar, and edged with rufous. Tail bronze-green at base, passing to black upwards and tinged with buff. The elongated tips of median rectrices white. Throat pure white. Rest of underside grayish buff. Wings purplish. Maxilla black. Mandible flesh colour, with black tip. Bill straight.

Total length,  $5\frac{2}{5}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $2\frac{6}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Slightly paler underside.

Having acquired some more specimens from British Guiana since I described *P. whitelyi* in the Humming Bird, I have

come to the conclusion that it is only a darker variety of *P. bourcierii*. It is also the opinion of Count Berlepsch. This rare species was dedicated by Lesson to the late Jules Bourcier, a celebrated collector of Humming Birds in Ecuador, where he resided many years as French Consul, and a well known author on Trochilidae.

\*520. AMETRORNIS PHILIPPI, Bourcier, Ann. Soc. Agr. Lyon., 1847, p. 623.

*Trochilus filippi*, Bourc., Rev. Zool., 1847, p. 401.

*Orthornis de filippii*, Bon., Rev. and Mag. Zool., 1854, p. 249.

*Ametrornis de filippi*, Reich., Aufz. der Col., 1853, p. 14.

*De Philippi's Hermit*, Gould, Mon. Troch., vol. i., p. 21.

*Le Phaethornis de Filippi*, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 88.

*Habitat*.—Bolivia.

Head and back bronzy-green. Uppertail-coverts shining green with a subterminal dark brown bar and largely tipped with dark rufous, this last colour giving the predominant hue to this part. Wings purplish-brown. Entire under parts rich dark buff. The median rectrices have the base bronzy-green, graduating into brownish-black with their elongated tips white. Lateral and outermost ones shining bronze-green at base followed with a broad black bar, and tipped with rufous. Bill straight. Maxilla black. Mandible flesh-colour tip brown.

Total length,  $5\frac{3}{4}$  in. Wing,  $2\frac{3}{4}$ . Tail,  $2\frac{3}{4}$ . Culmen,  $1\frac{1}{4}$ .

"Elliot's Syn. of the H. Birds, page 12."

I believe it is still unique in Elliot's Museum, now in the American Museum of Natural History of New York.

GENUS CLIV. **Milornis**, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 77.

TYPE: *T. squalidus*, Temminck.

Bill longer than the head, slightly curved, and acutely pointed. Wings long and narrow, reaching nearly the tips of the fourth lateral rectrice. Outermost rectrice shortest, laterals gradually longer. Medians pointed with elongated



tip nearly twice the length of the longest lateral. Feet small. Sexes similar.

*Habitat*.—Brasilia and Guiana.

521. MILORNIS SQUALIDUS, Temm., Pl. Col., 1823. 120 fig. 1.

*Phaethornis leucophrys*, Gray, Gen. Birds, vol. i., p. 104.

*Phaethornis brasiliensis*, Gray, Gen. Birds, 1844-49, vol. i., p. 104.

*Trochilus leucophrys*, Licht., Nordm., Reis. Att., p. 2.

*Phaethornis intermedius*, Gould, Mon. Troch., vol. i., p. 30.

*Ptyonornis intermedia*, Reich., Aufz. der Col., p. 14.

*Middle-sized Hermit*, Gould, Mon. Troch. vol. i., p. 30.

*Le Phaethornis squalide*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 78.

*Le Milornis squalide*.

*Habitat*.—Brazil.

*Male*.—Upperside bronze with the base of feathers brown, slightly darker on head. Median rectrices shining bronze-green passing into brownish-black close to the elongated tip, which is white. Lateral and outermost ones bronze-green at base, passing to brownish-black and tipped with buff. The lateral rectrice next to the median has generally a white tip. Underside dark grey-buff, darker on breast and flanks. Throat striated with brownish-black. Line over and behind the eye, and another under the ear-coverts buff. Auriculars black. Wings purple. Maxilla black. Mandible flesh-colour with black tip.

Total length,  $4\frac{1}{2}$  in. Wing,  $1\frac{7}{8}$ . Tail,  $2\frac{2}{3}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Like the male with the uppertail-coverts bronzy-green, and broadly margined with rufous. Underside buff, slightly lighter than in the male.

This species was discovered in Brazil, by Natterer.

522. MILORNIS RUPUNUNII, Boucard.

*Phaethornis rupunumii*, Boucard, H. Bird, vol. ii., p. 1.

*Rupununi's Hermit*.

*le Milornis de Rupunini*.

*Habitat*.—Rupunini River (British Guiana.)

*Male*.—Upperside pale golden-green, brownish on head. Uppertail-coverts golden-green, with rufous edges. Throat black. Lines under and above the eyes, pale rufous. Ear coverts black. Breast, abdomen, and flanks rufous-gray. Undertail-coverts white. Median rectrices bronze-green, paler near the tips, which are white, the next one of the same colour with the edges near the tip, and the tip white. Rest of lateral and outermost ones bronze at base, then purplish-black with white tips. Wings purplish-brown. Maxilla black. Mandible flesh colour for two-thirds of its length, the rest black.

Total length,  $4\frac{2}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail, 2. Culmen, 1.

Type in my collection.

This pretty species was discovered by Mr. H. Whitely on the river Rupununi, not Rupurumi, as formerly stated; hence the change of orthography in the name of this species.

\*523. MILORNIS NATTERERI, Berlepsch, Ibis, 1887, p. 290.

*Phaethornis nattereri*, Berlepsch, Ibis, 1887, p. 290.

*Phaethornis longuemareus*, Pelz., Orn. Bras., p. 27.

*Natterer's Hermit*.

*le Milornis de Natterer*.

*Habitat*.—Matogrosso, Brazil.

*Ph. longuemarei* affinis, differt rectricibus omnibus imprimis externis multo angustioribus intermediis inter apicem album et basin pallidius bronzinum griseo-brunneis (nec nigrescentibus) submediis ante apicem album laete rufis, externis apice et extus latissime rufis, corpore subtus pallidiore, nigredine gulæ vel nulla vel inconspicua; tectricibus subcaudalibus fulvis, nec albis, supracaudalibus fere unicoloribus badio rufis.

Long tot. circ., 100, al.,  $48-45\frac{3}{4}$ , rect. intermedi., 47-44, submed.,  $34\frac{1}{2}-34$ , extern.,  $20\frac{1}{2}-18\frac{3}{4}$ , rostr.,  $24\frac{3}{4}-22\frac{3}{4}$  m.m.

This species was discovered by Natterer, and confused with *P. longuemarei*. The most important point of distinction seems to consist in the form of the tail feathers, which in *Ph. nattereri* are rather narrow, while they are usually broad in *P. longuemarei*. The colouration of the tail is also different, the two middle feathers being pale brownish-gray

in their middle portion, not blackish as in *P. longuemarei* and presenting a paler bronze tint to their bases. The next following pair of rectrices possess a great amount of rufous on the outer webs, and a slight suffusion on the inner web, before the white tips. In *P. longuemarei* there is none or but little rufous tint on the submedian tail feathers.

The outer tail feathers in *P. nattereri*, possess very long rufous tips; in *P. longuemarei*, there is a narrow white or rufous border to the tip.. The middle portion of these rectrices in *P. nattereri*, is only slightly tinged with violaceous on the inner web, while they are altogether blacker for a long distance on both webs in *P. longuemarei*. Besides, the underparts of the body are of a paler fulvous, the jugulum only being slightly suffused with rufous. The throat does not show the large black spots so conspicuous in *P. longuemarei*. In *P. nattereri*, they are either completely wanting or invisible except at the extreme bases when the feathers are raised. The top of the head is a paler sandy rufous-brown. The uppertail-coverts are nearly uniform dark rufous with no trace of the green spots to be seen there in the other species. The black tip of the mandible is reduced to a minimum, being much shorter than in *P. longuemarei*. *P. apheles* Heine comes very close, this species differing only by the pure black and broad sub-apical band to the outer tail feathers and in its shorter wings.

\*524. MILORNIS APHELES, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 8.

*Phaethornis apheles*, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 8.

*Habitat*.—Brasilia?

*Adult*.—Very similar to *M. nattereri*, from which it differs only by the pure black and broad sub-apical band to the outer tail feathers, and its shorter wings.

Very doubtful species.

525. MILORNIS LONGUEMAREI, Less. Troch., 1831, p. 15,

*Phaethornis longuemareus*, Gray, Gen. Birds, vol. i., p. 104.

*Phaethornis intermedius*, Bon., Consp. Gen. Av., 1850, p. 67.

*Pygmornis longuemareus*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 7.

*Longuemare's Hermit*, Gould, Mon. Troch., vol. i., p. 31.

*Le Phaethornis de Longuemare*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 100.

*Le Milornis de Longuemare*.

*Habitat*.—Guiana and Trinidad.

*Male*.—Head dark-brown. Upperside bronzy-brown, margined with buff on lower part of uppertail-coverts. Median rectrices bronze, passing into brown near the tips, which are white. Lateral and outermost ones, bronzy at base, passing into blackish-brown, slightly margined at tip with buffy-white. Superciliary stripe, and one from the base of maxilla buff. Lores and ear-coverts black. Chin and upper part of throat black. Underside buff, lighter on the abdomen, and flanks. Undertail-coverts buff in some specimens, nearly white in others. Wings purple. Maxilla black. Mandible flesh-colour for two-thirds of its length, rest black.

Total length,  $3\frac{5}{8}$  in. Wing,  $1\frac{6}{8}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{15}{16}$ .

*Female*.—Differs from the male in not having scarcely any black on the chin and on the upper part of breast. Median rectrices longer than in the male, and broadly tipped with white.

Dedicated to Mr. Longuemare, by Lesson.

\*526. *MILORNIS CHAPADENSIS*, Allen, Bull. Amer., Mus., Nat. Hist., 1893, p. 122.

*Pygmornis chapadensis*, Allen, Bull. Amer., Mus., Nat. Hist., 1893, p. 122.

*Chapada Hermit*.

*Le Milornis de Chapada*.

Similar to *P. longuemareus*, but much paler in all parts. The bronzy-green of the back is much paler; the rump and uppertail-coverts are rusty-buff instead of rufous; the middle tail feathers are more attenuated, their basal portion lighter bronze-green and less dusky and the light apical portion longer and whiter; the lower parts are strong buff rather than rufous; the chin is only slightly dusky instead of blackish; the lowertail-coverts are buff instead of white, and the outer vanes of the outer tail feathers are strong rusty-buff, which colour also occupies the apical portions of the inner vanes.

Bill dusky, the lower mandible whitish for the greater part of its length.

Wing, 1.20 in. Tail, 1.75. Bill, 1.10.

Type, and only specimen, male adult, collected at Chapada, Matto Grosso, Brazil, by Mr. H. H. Smith.

\*527. *MILORNIS IDALIAE*, Bourc. and Muls., Ann. Soc. Linn. Lyon., 1856, vol. iii., p. 187.

*Phaethornis obscura*, Gould, P.Z.S., 1857, p. 14.

*Pygmornis obscura*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 7.

*Phaethornis viridicaudata*, Gould, Mon. Troch., vol. i., p. 33.

*Pygmornis aspasiae*, Gould, Int. Troch., 1861, p. 47.

*Obscure Hermit*, Gould, Mon. Troch., vol. i., p. 38.

*Le Pygmornis d'Idalie*, Muls. Hist. Nat. Ois. Mou., 1874, t. i., p. 91.

*Le Milornis d'Idalie*.

*Habitat*.—Brazil.

Head dark brown above; upper surface shining green. Wings purple. Buff stripe behind the eye; ear-coverts black. Buffy-white stripe along the side of the throat. This last is black becoming chestnut on the breast, dark gray on the abdomen, and white on the vent. Undertail-coverts grayish-white. Tail dark bronze tipped with white. Maxilla black. Mandible flesh-colour, tip brownish-black.

Total length,  $3\frac{3}{8}$  in. Wing,  $1\frac{3}{8}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{5}{8}$ .

*Female*.—Throat and underparts buff, palest on abdomen. Tail bronze-green passing into blackish-brown with white tips.

"Elliot's Synopsis of H. Birds, page 19."

According to Mulsant, this species was discovered by Mr. Chabrillac.

GENUS CLV. **Eremita**, Reich., Aufz. der Col., 1853, p. 14.

**PYGMORNIS**, Bon., Rev. and Mag. Zool., 1854, p. 250.

**MOMUS**, Muls. and Verr., Class. Troch., 1865, p. 18.

**PYGORNIS**, Muls. and Verr., Class. Troch., 1865, p. 17.

TYPE: *T. pygmacus*, Spix.

Bill much longer than the head, slender, slightly curved, and acutely pointed; mandible flesh colour or red at base for half its length, remainder black. Wings short, reaching the end of second lateral rectrice. Outermost one the shortest, the others gradually lengthening, median rectrice not much longer than the last lateral. Nostrils exposed. Sexes similar.

*Habitat*.—Mexico, Central America, Colombia, Venezuela, Guiana, Brazil, Ecuador, and Peru.

528. EREMITA PYGMAEA, Spix., Av. Bras., 1824, p. 78.

*Phaethornis rufigaster*, Less., Colibris. 1831, p. 43.

*Trochilus davidianus*, Less., Troch., 1832, p. 50.

*Trochilus brasiliensis*, d'Orb and Lafr., Syn. Av., 1828, t. ii., p. 32.

*Phaethornis davidianus*, Gray, Gen. Birds, 1848, vol. i., p. 108.

*Phaethornis eremita*, Bon., Consp., Gen. Av., 1850, vol. i., p. 68.

*Pygmornis davidianus*, Bon., Rev., and Mag. Zool., 1854, p. 250.

*Pygmornis rufiventris*, Bon., Rev. and Mag. Zool., 1854, p. 250.

*Pygmy Hermit*, Gould, Mon. Troch., vol. i., p. 41.

*Le Pygmornis pygmée*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 106.

*l'Hermite pygmée*.

*Habitat*.—Brazil, Guiana?

*Male*.—Upperside bronzy-brown, darker on head. Lower parts of rump and uppertail-coverts deep buff. Tail bronzy-brown tipped with buff. Chin white. Ear-coverts black. A buff stripe over and behind the eye. Rest of underside deep buff. In the middle of the lower part of breast a line, or a black spot. Wings purplish-brown. Maxilla black. Mandible flesh colour for half its length, rest black.

Total length,  $3\frac{1}{2}$  in. Wing,  $1\frac{1}{4}$ . Tail,  $1\frac{2}{3}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Slightly paler in colouration.



529. EREMITA NIGROCINCTA Lawr., Ann. Lyc. Nat. Hist., N.Y., 1858, vol. vi., p. 260.

*Pygmornis nigrocincta*, Cab. and Hein., Mus., Hein., 1860. t. iii., p. 7.

*Belted Hermit*, Gould, Mon. Troch., vol. i., p. 39.

*l'Hermite à ceinture noire.*

*Habitat*.—Pebas, Upper Amazons.

Probably the same as *Eremita pygmaea*. According to modern authors, Elliot, Salvin, Mulsant and others, the only difference is in the colour of the mandible which is flesh colour for nearly all its length with the tip black.

530. EREMITA EPISCOPUS, Gould, P.Z.S., 1857, p. 14.

*Pygmornis episcopus*, Gould, Int. Troch., p. 48.

*Bishop's Hermit*, Gould, Mon. Troch., vol. i., p. 40.

*l'Hermite évêque.*

*Habitat*.—Guiana.

Precisely like *E. pygmaea*, but the bill is slightly longer, and the tail feathers are reddish-bronze with brown edges and tips.

531. EREMITA WHITELYI, n. sp.

*Whitely's Hermit.*

*l'Hermite de Whitely.*

*Habitat*.—British Guiana.

*Female*.—Head brownish-black, margined with rufous. Upperside bronzy-green. Lower part of rump and uppertail-coverts deep buff. Median rectrices shining reddish-bronze at base, passing to purplish-black, then buff with pale yellowish white tips. Lateral and outermost ones reddish-bronze at base, passing to reddish-purple with broad buff tips. Line in the centre of chin and ear-coverts black. Spot over and behind the eye pale buff. Throat pale buff. Rest of underside buff, deeper on breast. Wings purple. Maxilla and apical half of mandible black, the rest flesh colour.

Total length,  $3\frac{5}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{1\frac{5}{8}}{16}$ .

Type in my collection.

This new species was discovered by the late Mr. H. Whitely

in Canela Mountains, British Guiana, and I dedicate it to his memory.

532. EREMITA GRISEIGULARIS, Gould, P.Z.S., 1851, p. 115.

*Pygmornis griseigularis*, Bon., Rev. and Mag. Zool., 1854, p. 250.

*Trochilus aspasiae*, Bourc. and Muls., Ann. Soc. Lynn., Lyon, vol. iii., p. 188.

*Phaethornis zonura*, Gould, P.Z.S., 1860, p. 305.

*Gray Throated Hermit*, Gould, Mon. Troch., vol. i., p. 36.

*Le Pygmornis à gorge grise*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 96.

*l'Hermite à gorge grise.*

*Habitat*.—Colombia.

*Male*.—The only differences between this species and *E. pygmaea* are: the grayish colour of the chin, and the colour of the median and lateral rectrices which are bronze at base, passing to brownish-black; the medians are tipped with white, the lateral and outermost ones with rufous. What Gould described as a black crescent across the breast must have been a place without feathers, showing the black base of the feathers. Many specimens from Bogota, in consequence of their bad skinning, show that black crescent.

533. EREMITA STRIIGULARIS, Gould, Mon. Troch., vol. i., p. 37.

*Pygmornis amaura*, Bourcier, Rev. Zool., 1856, p. 522.

*Phaethornis atrimentalis*, Lawr., Ann. Lyc. Nat. Hist., N.Y., vol. vi., p. 260.

*Stripe-throated Hermit*, Gould, Mon. Troch., vol. i., p. 37.

*Le Pygmornis à gorge striée*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 97.

*l'Hermite à gorge striée.*

*Habitat*.—Colombia and Ecuador.

*Male*.—Upperside bronze, darker on head. Rump and uppertail-coverts rufous. Median rectrices shining greenish-bronze passing to gray near the tips which are white. Lateral and outermost ones greenish-bronze slightly margined with white on tips, the two outermost ones with tips slightly margined with pale buff. Above and behind the eye and a line

from maxilla passing under the ear-coverts pale buff. Ear-coverts black. Throat and breast gray, striated with brownish-black on chin and throat. Abdomen and flanks deep buff. Undertail-coverts pale buff, nearly white in some specimens. Wings purple. Maxilla black. Mandible flesh-colour at base, rest black.

Total length,  $3\frac{5}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{7}{8}$ .

*Female*.—Underside paler gray on breast, and paler buff on abdomen and flanks.

\*534. EEREMITA RIOJAE, Berlepsch, Ibis., 1889, p. 182.

*Peruvian Hermit.*

*l'Hermite péruvien.*

*Habitat*.—Rioja, Peru, septentr.

*Male*. — *P. striigulari* affinis, sed major; differt etiam corpore subtus rufescentiore, et gula superiore nigrescentiore; rectricum externarum apicibus subtilissime albo marginatis (nec late fulvo apicatis), tectricibus subcandalibus pure albis nec fulvescentibus; macula pectorali fere ut in *P. pygmaeo* e plumis latis nigro-viridibus (in *P. striigulari* omnino absentibus.)

Long, tota, 110; al,  $44\frac{1}{2}$ ; rectr intermed,  $41\frac{1}{2}$ , submed,  $36\frac{1}{2}$ , extern,  $22\frac{1}{2}$ , rost culm,  $23\frac{1}{2}$  mm.

Type of species, Museum Berlepsch.

Discovered in May, 1887, by Mr. Gustav Garlepp. This is evidently a new species of Phaethornis, nearly allied to, but easily distinguishable from *P. striigularis* by its larger size, blacker throat, deeper fulvous abdomen, pure white (not fulvous) undertail-coverts, and narrow white borders instead of broad fulvous tips to the outer tail-feathers. The feathers in the middle of the breast are broad and greenish black, they form a tuft somewhat as in the male of *P. pygmaeus* and its allies, while such a tuft is altogether wanting in *P. striigularis*.

535. EREMITA ADOLPHI, Gould, Mon. Troch., vol. i., p. 35.

*Pygmornis adolphi*, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 7.

*Adolphe's Hermit*, Gould, Mon. Troch., vol. i., p. 35.

*Le Pygmornis d'Adolphe*, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 102.

*Habitat*.—Mexico, Guatemala, and Costa Rica.

*Male*.—Upperside bronzy-green, darker on head, and with a rufous tinge all over. Uppertail-coverts bronze, broadly edged with rufous. Tail bronze, medians tipped with white, lateral and outermost ones narrowly tipped with buff. Line over and behind the eye, and one from maxilla passing under the eye pale buff. Auriculars black. Throat and breast grayish-buff, paler in the middle of breast, dark buff on abdomen and flanks. Undertail-coverts buff. Wings purplish-brown. Maxilla black. Mandible flesh-colour from base to half its length, rest black.

Total length,  $3\frac{6}{8}$  in. Wing,  $1\frac{1}{2}$ . Tail,  $1\frac{5}{8}$ . Culmen,  $\frac{6}{8}$ .

*Female*.—Slightly paler in colouration.

This species was discovered at Tospam, near Cordoba, by myself and Sallé during our joint voyage in Mexico, and was dedicated to me by Gould.

It is this species which is abundant in the forests near Tospam and elsewhere, and which perch on the low branches of bushes near the ground. In the breeding season the male is perched near the nest of its mate and sings to her during the best part of the day.

GENUS CLVI. **Anisoterus**, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 72.

TYPE: *T. pretrei*, Less. and Delattre, Rev. Zool., 1839, p. 20.

Bill much longer than the head, slightly curved, broad at base and rather stout, terminating in a sharp point. Wings moderately long reaching between the second and third lateral rectrices. Outermost rectrice very short, the next slightly longer, the third longer, the fourth six-eighths of an inch longer with elongated round tips, the medians also six-eighths of an inch longer than the fourth. The length of the third, fourth and median rectrices distinguishes this genus from the preceding ones. Nostrils exposed.

*Habitat*.—Brazil, Venezuela and Columbia.

536. ANISOTERUS GOUNELLII, Boucard, H. Bird, 1891, vol. i., p. 17.

*Phaetornis gounellei*, Boucard, H. Bird, 1891, vol. i., p. 17.  
*Gounelle's Hermit*.

*l' Hermite de Gounelle.*

*Habitat.*—Brazil.

*Male.*—Head dark bronzy-green encircled by a rufous bar. Upperside bronzy-green with the base of feathers buffy-gray. Uppertail-coverts bronzy-green margined with buff. Median rectrices bronzy-green for nearly the whole of their length, with a narrow brownish-black subterminal bar and white tips, lateral and outermost ones green at base with a broad subterminal black bar and largely tipped with white. Line over and behind the eye pale buff, joining the rufous bar of neck. Ear-coverts black. From the maxilla a pale buff line passing into buff under the ear-coverts. A blackish line in the centre of throat. Rest of underside buff passing to buffy-white on flanks and abdomen. Undertail-coverts buff paler than that of the breast. Wings purple. Maxilla black. Mandible flesh-colour for a little over half its size, the rest black.

Total length, 4½ in. Wing, 2. Tail, 2. Culmen, 1.

This species has nothing to do with *P. nattereri*, as suggested by Mr. Salvin in the Catalogue of Birds of the British Museum, vol. xvi. I sent the type to Count Berlepsch, who had the type of *P. nattereri* at the time, and, after comparison, he wrote saying that there was not the least resemblance between the two species.

537. ANISOTERUS PRETRII, Less. and Delattre, Rev. Zool., 1839, p. 20.

*Trochilus superciliosus*, Max. Beitr., vol. iv., p. 116.

*Phaethornis pretrei*, Gray, Gen. Birds, vol. i., p. 104.

*Pretre's Hermit*, Gould, Mon. Troch., vol. i, p. 28.

*Le Phaethornis de Prêtre*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 73.

*Habitat.*—Brazil.

*Male.*—Upperside bronzy-green. Uppertail coverts buff. Median rectrices bronzy-green for two-thirds of their length, remainder white. Lateral and outermost ones shining bronzy-green at base, succeeded by a broad black bar and tipped with pure white. Throat light buff in the centre. Entire underside deep buff. Wings purple. Lines under and behind the eye buff. Maxilla black. Mandible flesh colour (coral in life) with black tip.

Total length, 6in. Wing,  $2\frac{2}{8}$ . Tail,  $3\frac{1}{8}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Upperside like the male. Underside paler buff, showing more the central line of throat. Lines behind and under the eye pale buff. Ear-coverts brownish-black. Both sexes have a white tuft on each side of anal region.

This species was dedicated by Messrs. Lesson and Delattre, to Prêtre, the artist, who did all the plates, for the TROCHILIDAE, of Lesson.

538. ANISOTERUS GARLEPPI, Boucard, Hum. Bird, vol. iii., p. 9.

*Phaethornis garleppi*, Boucard, Hum. Bird, vol. iii, p. 9.

*Garlepp's Hermit*.

*l'Hermite de Garlepp*.

*Habitat*.—Bolivia.

*Male*.—This species is closely allied to the preceding one, but is smaller. The colouration of the upperside is exactly the same, excepting the uppertail-coverts, which are shining bronze-green margined with buff. The entire underside is not so deep buff as *A. pretrii*, the undertail-coverts are pale bronze margined with white, the lateral rectrices are much wider, shorter, and nearly rounded, but the same characters of the genus exist in this species as in the preceding ones.

Total length,  $5\frac{6}{8}$ in. Wing,  $2\frac{2}{8}$ . Tail,  $2\frac{7}{8}$ . Culmen,  $1\frac{1}{8}$ .

It was discovered in 1890, at Bueyes (Bolivia), by Mr. Gustav Garlepp.

Type in Boucard's Museum.

539. ANISOTERUS AUGUSTII, Bourc., Ann. Sc. Phys., Lyon, 1847, vol. i., p. 623.

*Phaethornis augusti*. Bon, Consp. Gen. Av., vol. i., p. 68.

*Sallé's Hermit*, Gould, Mon. Troch., vol. i., p. 29.

*Le Phaethornis d'Auguste*, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 75.

*l'Hermite d'Auguste*.

*Habitat*:—Venezuela, Colombia and Guiana.

*Male*.—Upperside grayish-bronze, brown on head. Upper-tail-coverts shining green in the centre of the feathers and

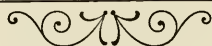


broadly margined with fulvous, this being the predominant colour of this part of the body in the specimens from Colombia and Venezuela, but much less in those from Guiana. Line above and behind the eye, and one beneath, pure white. Ear coverts black. Median rectrices, bronzy at base, succeeded by a brownish-black bar, and tipped for one-third of their length with white. Lateral and outermost ones bronze at base, then black tipped with white. Underside ashy-gray with a central stripe on throat white, and brownish-black on each side. Wings purplish. Maxilla black. Mandible, red with black tip.

Total length,  $6\frac{1}{2}$  in. Wing,  $2\frac{2}{8}$ . Tail,  $3\frac{1}{2}$ . Culmen,  $1\frac{2}{8}$ .

*Female*.—Slightly paler on underside, especially near the gular stripe, which is of a slightly darker gray than the rest.

I have a fine series of this species from Caracas and Merida, Venezuela, from British Guiana, and from Colombia. There are small differences in the colouration according to localities, but not enough, I think, to separate them. I believe that the well-known Collector, Mr. Auguste Sallé, was the first who brought the species to Europe. It was dedicated to him, by Mr. Bourcier.



## ADDENDA.

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SINCE the publication of the GENERA OF HUMMING BIRDS, 1893-1895, the following species have been described. Others are described or recognised as good. Here they are:—

### Cephalolepididae.

ANTHOCEPHALA BERLEPSCHI, Salv., B.O.C. 3, p. 8. Ibis, 1894, p. 120.

*Berlepsch's Blossom Crown.*

*l'Antocephale de Berlepsch.*

*Habitat.*—Colombia.

*A. floricipiti* similis, sed apicibus rectricum lateralium late albis nec cervinis, abdomine et tectricibus subcaudalibus griscentibus nec rufescentibus distinguenda.

Type in Museum Berlepsch.

### Metalluridae.

METALLURA ATRIGULARIS, Salv., B.O.C. 1, p. 49, also Ibis, 1893, p. 449.

*Black Throated Metallura.*

*la Métallure à gorge noire.*

*Habitat.*—Ecuador.

*Male.*—Similis *M. primolinae*, sed gula media intense nigra, plumis ad basin castaneis et medialiter fascia transverso angusta amethystina notatis. Aliter ferè ut in sp, cit.

*Female.*—Gula inornata rectricibus lateralibus albido terminatis.

Long, alae 2.2 poll, candae 1.5, rostri a ricta 0.65.

The discoverer of this fine new species is Mr. O. T. Baron.

Types in British Museum

METALLURA BARONI, Salv., Ibis, 1893, p. 449.

*Metallura baroni*, Salv., B.O.C. 1, p. 49.

*Baron's Metallura.*

*la Métallure de Baron.*

*Habitat.*—Hills, near Cuenca, Ecuador.

*Male.*—Supra saturate cupreo-viridis, capite. obscuriore, subtus cum tectricibus subcaudalibus ejusdem coloris, gula tota saturate amethystina micante; canda saturate viridi infra nitentiore.

Long, alae 2.2 poll, candae 1.4, rostri a ricta 0.65.

*Female.*—Mari similis, sed subtus plumis omnibus ad basin cervinis, abdomine toto maculis discalibus obscure viridibus; gula maculis saturate amethystinis notata, rectricibus externis vix sordide albo terminata.

The discoverer of this species is Mr. O. T. Baron.

Types in British Museum.

## Chlorolampidae.

CHLOROSTILBON PUMILUS, Gould, Ann. and Mag., N.H., 1872,  
p. 195.

*Small Emerald.*

*le Chlorostilbon plus petit.*

*Habitat.*—Colombia, Ecuador.

*Male.*—Closely allied to *C. angustipennis*, but smaller, throat not so golden and with a bluish tinge, bill shorter.

Total length, 3in. Wing, 1.7. Tail, 1.05. Bill, 0.65.

*Female.*—Upperside golden-green, passing to bluish-green on rump and uppertail-coverts. Underside whitish-gray washed with green on flanks. Rectrices steel-blue, tipped with gray. Maxilla and mandible black. Same size as the male.

I have only two specimens, male and female, of this rare species, from which the above descriptions are taken. They were collected at Medellin, Colombia, by Mr. Salmon.

Type of female in my collection.

Amaziliidae.

POLYERATA DECORA, Salv., Cat. of Birds, vol. xxi., p. 238.

*Damophila amabilis*, Salv., P.Z.S., 1870, p. 211.

*Polyerata amabilis*, Boucard, Gen. H.B., p. 142.

*Veraguan Polyerata*.

*la Polyerate de Veragua*.

*Habitat*.—Chiriquí, Veragua.

*Male*.—Very closely alike that of *P. amabilis*, but the bill much longer and the glittering feather of the crown extended to the nape.

After a careful study of my specimen, collected in Chiriquí by Mr. Arcé, I have come to the same conclusion as Mr. Salvin, that it is a valid species.

POLYERATA ROSENBERGI, n.sp.

*Rosenberg's Polyerata*.

*la Polyérate de Rosenberg*.

*Habitat*.—Rio Dagua, Colombia.

*Male*.—Upperparts dark bronze-green. Median rectrices bronze-green, laterals bronze-green at base, then bluish-black, outermost one bluish-black. Chin and throat metallic emerald-green. Breast metallic blue with a purplish tinge. Abdomen dark sooty gray with a bar of metallic green feathers, separating the blue of the breast from the gray of the abdomen. Undertail-coverts pure white. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{9}{16}$ . Wing,  $2\frac{1}{4}$ . Tail,  $1\frac{1}{4}$ . Culmen,  $\frac{6}{8}$ .

*Female*.(?)—Upperside coloured as the male; but all the rectrices, excepting the middle ones, are tipped with white. Underside white, speckled with metallic green feathers on the breast and abdomen. Undertail-coverts white. Maxilla and mandible black. Same size as the male.

This fine new species, which cannot be confused with *P. amabilis* or *P. decora*, having no metallic forehead, and being much more brilliantly decorated on the underside than any of the other two species, was discovered this year in Colombia by Mr. H. W. Rosenberg, to whom I have the pleasure of dedicating it.

Types in my Collection, to be forwarded shortly to the Paris Museum, with all my other types of birds, and where they can be seen by applying to Mr. Oustalet, Assistant Curator of the Ornithological Department.

HYLOCHARIS ROSTRATA, Berlp. (litt.)

HYLOCHARIS CYANEA ROSTRATA, Berlp. (litt.)

*Garlepp's Sapphire.*

*l'Hylochare de Garlepp.*

*Habitat.*—Rioja, Peru.

*Male.*—This species is very closely allied to *H. cyanea*, but the bill is much larger. It was discovered in Peru by Mr. Garlepp.

HYLOCHARIS SPECIOSA, Boucard, H.B., 1893, vol. ii., p. 8.

*Agyrtria speciosa*, Boucard, Hum. Bird, 1893, vol. ii., p. 8.

*Specious Sapphire.*

*l'Hylochare specieux.*

*Habitat.*—Brasilia.

*Male.*—Upperparts dark bronzy-green, a very slight coppery tinge on the uppertail-coverts, but none at all on the crown which is of the same dark hue as the back. Throat and breast glittering blue with greenish reflections on sides of neck and breast. Flanks gray, washed with bluish-green. Middle of the abdomen, vent, and undertail coverts pure white. Median rectrices bronze; lateral and outermost ones bluish-black with gray tips. Maxilla black. Mandible flesh colour with black tip.

Total length,  $3\frac{1}{2}$  in. Wing,  $2\frac{3}{8}$ . Tail,  $1\frac{2}{8}$ . Culmen,  $\frac{11}{16}$ .

It is possible that although there are great differences of colouration between my unique specimen of *H. lactea* and these, that it may turn out to be only the same species.

URANOMITRA SALVINI, Brewst., Auk. x., 1893, p.p. 214, 215.

*Cyanomyia salvinii*, Brewster, Auk. x., 1893, p.p. 214, 215.

*Salvin's Humming Bird.*

*la Leucolie de Salvin.*

*Habitat.*—Sonora, Mexico.

*Male*.—Top and sides of head, with sides of neck, glittering blue; remainder of upperparts rather dull, dark, but shining green, somewhat obscured by drab on the rump and uppertail-coverts. Shoulders and wing-coverts green, like the back, but all the quills dark hair brown with a faint gloss of purplish. Tail dark glossy green; the outer pair of feathers broadly tipped with drab. Underparts soiled white, the middle of the throat tinged with clayey buff (a strain, probably), the feathers along its sides with large, crescent shaped, subterminal spots of blue. Sides of breast greenish-blue. Sides of body brilliant green. Bill (in the dried specimen) dull reddish-brown or brownish-orange, lightest at the base, deepening to horn colour at the tip.

Wing, 2·07 in. Tail, 1·27. Length of culmen from base, 1·02; from feathers, 0·88. Width of bill at base, 0·13.

Similar to *C. cyaneicollis*, but smaller, with shorter wings, shorter and squarer tail, but longer and slender bill; iridescent colours on sides of neck bordering the throat, blue like the crown instead of greenish; very much more green on sides of breast and body, the white of the underparts, especially of the throat and jugulum, being confined to a narrow central space; upper mandible light reddish at the base instead of black as in *cyaneicollis*.

Type, male adult (Nos. 24, 125, Collection of William Brewster).

LEUCIPPUS VIRIDICAUDA, Berlp., Ibis, 1883, p. 493.

*Leucippus chionogaster*, Sclat. and Salv., P.Z.S., 1876.

*Green tailed Leucippus*.

*Le Leucippe de Berlepsch*.

*Habitat*.—Huiro, Peru.

*Male?*—Suprea aureo-viridis, subtus sericeo albus, gulæ et colli lateribus maculis parvis, lateribus pectoris hypochondriisque aureo viridibus; sub candalibus albis, minoribus macula centrali viridi-aurea; rectricibus glauco viridibus unicoloribus. "Berlepsch in Orn. Per."

This rare species was discovered at Huiro, Peru, by Mr. Whitely.



AITHURUS TAYLORI, Rotsch., Ibis, 1894, p. 547-548.

*Taylor's Black Capped Humming Bird.*

*l'Aithure de Taylor.*

*Male*.—Exactly like *A. polytmus*, but with a large ruby coloured spot on the throat.

*Habitat*.—Jamaica.

Collector, Mr. C. B. Taylor.

Type in Rostchild's Museum.

It is quite extraordinary that among the many thousand skins of *Aithurus* sent from Jamaica to England in the last years, I never saw a specimen like this. I think it may be an accidental discolouring, as those mentioned in the GENERA OF HUMMING BIRDS, page 320, for *Petasophora corruscans* and *rubrigularis*.—(EDITOR).

## Phaethorniidae.

GLAUCIS COLUMBIANA, n.sp.

*Colombian Hermit.*

*le Glaucis de la Colombie.*

*Habitat*.—Rio Dagua, Colombia.

*Male*.—Forehead blackish, rest of underparts rich golden-bronze. Central rectrices bronze-green, edged with black near the tips, which are white; lateral and outermost ones reddish-chestnut at base, then black with white tips. Underparts, including the tail-coverts, rich cinnamon. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 4in. Wing, 2. Tail,  $1\frac{3}{8}$ . Culmen,  $1\frac{1}{8}$ .

*Female*.—Exactly like the male, excepting the mandible, which is all black.

Types in Boucard's Museum.

This new species, the smallest of all, was collected this year by Mr. H. W. Rosenberg.

## ERRATA.

In all places where it occurs read *colour* instead of *color*.

Page 2, line 7, read *buff* instead of *puff*.

„ 3 „ 35, „ *median* instead of *medium*.

„ 3 „ 14, „ „ „ „

„ 5 „ 17, add *the* before *flanks*.

„ 9 „ 3, read *ardent* instead of *ordent*.

„ 9 „ 16, add *with* before *rufous*.

„ 17 „ 23, „ *to it* before *filiform*.

„ 19 „ 30, read *rectrice* instead of *rectrix*.

„ 27 „ 15, „ *Paso* instead of *Pasos*.

„ 39 „ 26, „ *The young* instead of *young*.

„ 62 „ *Oreonympha* „ *Oreonlympha*.

„ 107 „ 23, „ *Hauxwell* „ *Hanswell*.

„ 115 „ 15, „ *Chlorolampe* „ *Chloralampe*.

„ 120 „ 6, „ *Emeraude* „ *Emerande*.

„ 122 „ 14, „ *inexpectata* „ *inespectata*.

„ 143 „ 26, „ *fulvifrons* „ *fulrifrons*.

„ 167 „ 7, „ *Leucochloris* „ *Lencochloris*.

„ 194 „ 23, add *the* before *flanks*.

„ 207 „ 29, read *aurescens* instead of *laurescens*.

„ 218 „ 16, „ *henrici* „ *henrica*.

„ 223 „ 12, add *Costa Rica* after *Veragua*.

„ 224 „ 23, read *Parzudakia* instead of *Parzuduchia*.

„ 237 „ 17, „ *their length* „ *its length*.

„ 319 „ 22, „ *Praxilla* „ *Paxilla*.

„ 320 „ 35, „ *corruscans* „ *corruscaus*.

„ 358 „ 33, „ *phainopeplus* „ *plainopeplus*.

„ 372 „ 9, „ *Sigismond* „ *Sigimond*.

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